

PROFESSIONAL DEVELOPMENT SCHOOLS: YESTERDAY'S THEORIES,
TODAY'S REFORM?

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By Nancy A. Sebring
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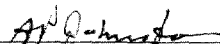
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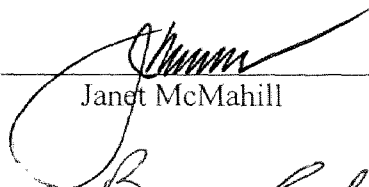

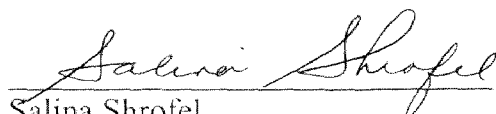
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An abstract of a Dissertation by
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The purpose of this study was to examine whether two theorized results had been realized by six Colorado high schools participating in professional development school partnerships.

A survey was distributed to certified teaching staffs of six demographically similar high schools that had been participating in professional development school partnerships for a minimum of three years. Attributes of the two theories were identified, and respondents were asked to identify the degree to which partnership involvement had resulted in an increase in the identified attributes at their sites. Independent variables utilized in the survey were respondents' number of years in education, level of education and involvement in partnership activities.

Null hypotheses of the study were:

1. There are no significant mean differences in collaboration, allocation of resources, research and inquiry and interchange of roles for individuals by differing years experience in education.
2. There are no significant mean differences in collaboration, allocation of resources, research and inquiry and interchange of roles for individuals by differing levels of education.
3. There are no significant mean differences in collaboration, allocation of resources, research and inquiry and interchange of roles for individuals by differing levels of involvement in partnership activities.

A between groups factorial design was utilized for the study. Survey data was analyzed with multivariate analysis of variance. Narrative data from two open-ended questions was summarized and reported. Results of the study revealed no statistically significant relationships between years in education and level of education on the dependent variables. Significance was determined between level of involvement on three of the four dependent variables. Follow up ANOVAs revealed that there was significance between respondents who identified their level of involvement as high and those who identified their level of involvement as average on the three variables. Narrative data supported the statistical findings of the study.

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Chapter 1

INTRODUCTION

Politicians, parents, educators, and the public at large have both an interest and investment in American public education. Most citizens believe that the connection between schooling and the health of the nation are closely linked. In the 1950s, Americans became alarmed by the Russian launch of Sputnik. They believed that a lagging educational system had allowed the Soviet Union to surpass the United States in technical power. The result was government-driven reform when Congress passed the National Defense Education Act to improve the nation's schools.

By the 1960s, another reform agenda had captured the attention of the American public. In 1954, the Supreme Court ordered schools to be desegregated. In its ruling, the Supreme Court stated that schooling "is the principal instrument in awakening the child to cultural values, in preparing him for later professional training, and in helping him to adjust normally to his environment. In these days, it is doubtful that any child may reasonably be expected to succeed in life if he is denied the opportunity of an education" (quoted in Tyack, 1974, p. 279). The Civil Rights Act of 1964 addressed concerns of black Americans on several issues, which included the issue of fair and equal educational opportunities for minority youth.

In addition to racial conflict, the nation confronted unrest on a number of domestic fronts: involvement in the Vietnam war, poverty, changing cultural values, the drug culture, the feminist movement. The 1960s became the decade of great social

reforms and schools became the center of change. Schools were expected to address the social, emotional and academic needs of a more diverse population of children. The institution took on greater responsibility for the societal well being of the nation. In addition, schools were expected to maintain technological superiority and retain the capacity of the country to compete economically on a global basis. Schools responded by adding more curricula, tearing down walls, grouping students in a variety of ways, bussing students and eliminating dress codes. The sixties decade of social reform had contributed to experimentation and innovation in the educational system. Improvement in terms of student achievement or in significant, lasting change was not always evident as a result of the efforts.

By the late 1970s and early 1980s, particularly during times of economic crisis, schools become the focus of the nation's political agenda. In 1983, the National Commission on Excellence in Education (a commission appointed by then-president Ronald Reagan) released a report entitled "A Nation at Risk." The report identified the schools as the primary cause of a lagging economy and failed industry. The report concluded that unless the nation's schools improved, the United States was at risk of losing its leadership role in "commerce, industry, science, and technological innovation" (1983). Within a few years, a report was released by the National Governors' Association. In its report "Time for Results" the governors asserted that "better schools mean better jobs" and without immediate and large-scale improvement, American's standard of living would decline (Alexander, 1986). In 1989, President Bush unveiled an initiative called "America 2000." In it, six goals were identified that were to provide direction and focus for American education in the year 2000 and beyond. Once again,

the majority of the goals related to economic well-being. Following President Clinton's arrival in office, the administration developed a new position on education known as "Goals 2000." Frustration grew as goals were articulated but failed to result in measurable improvement of outcomes. As the nation entered the 1990s, reform rhetoric shifted from ambitious goal-setting to the language of increased accountability. Increasing accountability for measurable improvement would surely result in the changes society was demanding of schools. Accountability took the form of educational standards by which schools, curricula, and student performance could be measured. High stakes testing accompanied content-driven educational standards as well as increased requirements for graduation and college admission. Financial rewards and punishments were attached to student achievement results...the bottom line became the tool for the accountability movement.

Reform and Teacher Education

Upon entry in the 19th century, formal teacher education programs did not exist in the United States. Formal teacher education was introduced in the 1880s to meet the increasing concern of the education and welfare of youth. Ultimately, tax supported public education spread across the country. The resulting growth in schooling created a demand for well-trained teachers. Institutes that trained teachers began as "Normal Schools" (Johnson, 1999, p. 1). Normal Schools grew into legitimate schools of education within public university settings focusing on the skills and curricula suitable for America's children. Over time, schools of education became acculturated to university norms. Educators recognized that power and prestige were awarded to educational researchers and university-driven educational research moved to the top of

the higher education agenda. Financial incentives, recognition and status followed the shift in priorities. Teacher preparation was reduced to a secondary priority.

Throughout the latter part of the twentieth century, the nation had put constant pressure on schools to change and improve, however, reform of teacher education programs was ignored as society focused on K-12 schooling. Connections between the improvements of schools with improvement of teaching began in the late 1960s and early 1970s. Typically, the relationships that at that time existed between schools and universities were temporary and generally focused on the findings of educational researchers. Resources were limited to support on-going partnerships, and generally, a relationship between two dissimilar institutions was difficult to maintain (Petrie, 1995). Clark (1999) revealed that mutually beneficial partnerships, with schools and universities acting in interdependent fashion, rarely happened. Still, the idea that a collaborative and mutually beneficial partnership could exist between universities and schools appealed to educational theorists throughout the 1980s. A new type of partnership characterized by the deliberate joining of school districts and schools with universities for simultaneous improvement and the education of educators was introduced into the mainstream educational agenda in the mid to late 80s by the Holmes Group, the National Network for Education Renewal and the Carnegie Forum. A vision for the reform of K-12 schools and universities' schools of education included the establishment of a new educational partnership uniting both in an effort to improve education for students and change the entrenched behaviors and patterns of both institutions. Theorists predicted improved outcomes for PreK-12 students, better prepared teachers and reinvigorated faculties as the result of the proposed partnerships:

A number of individuals and organizations...advocate a new kind of school that is dedicated to the improvement of educational outcomes for students through research and development and the improvement of teaching and teacher preparation....these schools are regular K-12 public schools that have formed an enduring partnership with a university capable of mounting a powerful research and development agenda...to improve the quality of teaching and teacher education, improve the quality and effectiveness of educational research and produce higher levels of learning among students. (Petrie, 1995, p. 23)

In addition, pressure from outside the educational community was brought to bear on teacher education and preservice programs. "A Nation at Risk" recommended higher standards for preservice programs, including greater mastery of academic subject matter. The accountability movement had ultimately impacted teacher education and licensure. States began to require teachers to pass tests in order to obtain licensure or keep their jobs. The National Commission on Teaching and America's Future reported that it was time to "get serious about standards." (Johnson, 1999, p. 1) The Commission urged states to adopt the recommendations by the National Council for Accreditation of Teacher Education (NCATE), the Interstate New Teacher Assessment and Support Consortium (INTASC), and the National Board for Professional Teaching Standards for teacher education, teacher licensing, and advanced certification of teachers because they

“offer the most powerful tools we have for reaching and rejuvenating the soul of the profession” (National, 1996, p. 18, reported in Johnson, 1999, p. 3).

The Holmes Group

In 1986, a group of seventeen educational deans of major research institutions formed the Holmes Group. The Holmes Group presented a vision for school reform and the education of educators in their first report *Tomorrow's Teachers* (1986). The vision included a collaborative effort between schools and universities where practicing teachers, preservice teacher candidates and university researchers would work together to improve the teaching and learning for all students. The collaboratives would be similar to teaching hospitals and would be known as the Professional Development School (PDS). The professional development school would require significant changes in the roles of K-12 educators as well as university faculties. Educators would work together on a research agenda focused on solving real problems in America's schools. In addition, the professional development schools would increase the professional relevance of the work of educators, resulting in elevating teaching to a full-fledged profession. In its second report, *Tomorrow's Schools* (1990) The Holmes Group further defined the goals of PDSs. Schools and universities would collaborate in order to professionalize teaching. No longer would teachers be passive recipients of reform efforts, but would be an integral part of the process. The link between teacher education and reform of America's schools was established. In addition, PDSs were specifically designed to address the reform agenda across all segments of schooling. PDSs required whole-school involvement, to

face “all the pressures of real schools in real communities” (Petrie, 1995, p. 25).

Currently, the Holmes Group is an organization of about 100 colleges of education in research-oriented universities in the United States.

National Network for Educational Renewal

The National Network for Educational Renewal (NNER) was established in 1986. The NNER extended the work of the Center for Educational Renewal (CER) which was founded in 1985 by John I. Goodlad, Kenneth A. Sirotnik and Roger Soder to study and facilitate the simultaneous renewal of schooling and the education of educators (Clark, 1999). A blueprint for the simultaneous renewal of schools and the education of educators was put forth in Goodlad’s *Teachers for our Nation’s Schools* (1990) and *Educational Renewal: Better Teachers, Better Schools* (1994). *Teachers for Our Nation’s Schools* presented Goodlad’s conclusions. *Educational Renewal* provided additional explanation of some of the basic concepts introduced in the first book, focusing on key relationships that needed to be built among teacher educators, arts and sciences faculty, and school-based educators (Clark, 1999).

The National Network for Educational Renewal was committed to the redesign of PDSs in order to achieve the goals of simultaneous renewal. For Goodlad, the schools commonly referred to as professional development schools (PDSs) should be called “partner schools”. To become a partner school, schools and universities would have to be willing to critically examine the school’s structure and performance and address the four goals of partnerships: educate children and youth, prepare educators, provide professional development and conduct inquiry. Initially, eight settings were identified to

become members of NNER. More than 500 partnerships were listed in the 1997-1998 directory. Partner schools in the NNER share a commitment to the nineteen postulates enumerated by John Goodlad in *Teachers for Our Nation's Schools* (Appendix A). In addition to the nineteen postulates, NNER settings shared common values that influence the ways in which they approach their overall mission of simultaneous renewal of schools and the education of educators (Clark, 1999).

Abdal-Haqq (1998) reported that schools that shared the mission and goals of professional development schools were known by various names: Professional Development Schools (the Holmes Group); Professional Practice Schools (American Federation of Teachers); Clinical Schools (Carnegie Report) and Partner Schools (National Network for Education Renewal). By the mid-nineties, the number of programs in the United States (survey data provided by the Clinical Schools Clearinghouse, AACTE, 1994-1996) identified 344 individual preK-12 schools, 84 partnerships, which included 96 colleges and universities, and documented PDS partnerships in 38 states.

Common goals of the programs included improving student performance and achievement, preparing new teachers, professional development of beginning and experienced teachers and on-going research and inquiry designed to improve practice. Additionally, PDS partnerships shared common commitments, frequently described as simultaneous renewal of schools and teacher education, and incorporated democratic ideals in the reform of the American educational system. The nationally stated purposes of professional development schools as defined by major organizations (Network for Educational Renewal, the Holmes Group, the National Center for Restructuring

Education, Schools and Teaching and the National Council for Accreditation of Teacher Education) agreed that partnerships must provide a clinical setting for preservice education; engage in professional development for practitioners; promote and conduct inquiry that advances the knowledge of schooling and provide exemplary education for some segment of PreK-12 students (Clark, 1999, p. 9).

Purpose

The following study of six partner schools participating in the Colorado Partnership for Education Renewal (a member of NNER) was designed to contribute to the theory-based research of school-university partnerships. It attempted to clarify two of the early theories of school-university partnerships (those theories specifically related to the school rather than university settings) and to determine the extent to which the early theories regarding the interdependent nature of school-university partnerships had been realized. Guidelines utilized in the preparation of the study included efforts to clearly define program theory, making characteristics of the theory explicit; and to operationalize PDS theory, identifying PDS program elements that, through a review of literature, would be expected to be present in professional development school partnerships.

The purpose of the study was to determine to what extent, if any, practitioners in PDS partner high schools perceived increased professionalization of teaching and improved regularities of schooling as outcomes of the partnership.

The Research Questions

The following questions guided the research:

1. To what degree, if any, have intended outcomes of PDS partnerships regarding increased teacher professionalization occurred?
2. To what degree, if any, have intended outcomes of PDS partnerships regarding improved regularities of schooling occurred?

Definition of Terms

Terms used in the research study included the following:

- Professional Development School: sites where schools and universities have joined in a formal collaborative arrangement for the purpose of improving teacher preparation, supporting professional development, and improving education.
- Partner School: the PreK-12 settings where the school-university collaborative (professional development school) is located.
- NNER: the National Network for Education Renewal. The network of schools and universities created by John Goodlad, Roger Soder and Kenneth Sirotnik, to support and sustain the mission of the professional development school.

Delimitations

The researcher chose to limit the scope of the study to six Colorado high schools and to gather data from only one school year. The schools chosen for the study shared similar demographic characteristics, had participated as a partner school for a minimum

of three years and were all members of the Colorado Network for Education Renewal. Additionally, the study examined only two theories related to school-university partnerships known as PDSs: teacher professionalization and improved regularities of schooling.

Limitations

The study was limited by the use of the survey instrument. Intact groups were used since it was not possible to do random assignment of participants to groups by the researcher. The data relied on the honesty of the respondents. The return rate of the surveys was low, possibly due to the length of the survey. This limited the generalizability of the results.

Assumptions

The assumptions of the study included the following: teachers in the partner schools were knowledgeable regarding PDS goals and activities in their schools; supervisors in the schools administered the surveys following the directions provided by the researcher; effort and attention to the completion and return of the surveys were provided by the survey administrator (in most cases, an administrator at the school).

Significance of the Study

Nearly two decades have past since the notion of a new type of school-university partnership was introduced by educational theorists. Since that time, there has been

much documentation of the difficulties of implementing school-university partnerships. According to Mantle-Bromley (2002) far fewer studies have examined school-university partnerships from a theoretical perspective. PDS “successes” have been based primarily on successful implementation data. Goodlad and Soder (1992) in a review of evaluative analyses of school-university partnerships presented the following observation:

The rhetoric of school-university partnerships far outruns the reality. It quickly became apparent...that many ventures referring to themselves as such are little more than projects, initiated by either school or university personnel, in which teachers and a few professors are engaged over a period of time occasionally extending into several years. (p.14)

Howey (1996) noted the lack of partnership evaluations that specifically examined teaching practices and the impact on learning. Clark (1999) suggested that PDSs may have merely provided new names for unchanged practice. He raised questions about the legitimacy of partnerships when practices were examined:

Almost all schools calling themselves professional development schools emphasize some element of preservice education. Only a few focus on retraining practicing teachers or on some other form of staff development...inquiry efforts tend to feature projects carried on by individual professors and school faculty rather than focus on the institution....Whether schooling is—or even should be—exemplary for the children enrolled in the PDS is problematic. Little information exists concerning P-12

educational practices in existing PDSs (although the evidence that is available is positive); instead, most published case studies focus on the training given to preservice candidates. (p. 9-10)

Evaluations of PDSs frequently found in the literature have failed in helping to identify the aspects of PDSs that are critical to programs' success. Abdal-Haqq's extensive review of literature (1998) revealed that "the bulk of studies tend to focus on changes in inservice and preservice teacher attitudes, beliefs and self-efficacy; examination of development and implementation processes; and investigations of school climate and culture" (1998, p. 8). In addition, Abdal-Haqq pointed out that case studies have proliferated in PDS literature.

Summary

Noting that there are far fewer studies regarding the impact of the PDS partnerships on school sites and the professionals who dwell within them than other elements of PDSs, the researcher decided to examine whether PDS partnerships had, in fact, systemically changed the roles and purposes of educators and PreK-12 education. Foremost in the researcher's mind was the question of whether predicted outcomes of PDS partnership involvement had succeeded in changing the culture and practices within the high school setting.

Chapter 2

REVIEW OF THE LITERATURE

Information for the review of literature was obtained at the Drake Library at Drake University, the Morgan library at Colorado State University, Poudre School District Research and Development Center, and from the researcher's personal collection of periodicals and books. Descriptors used to conduct the research included: "professional development schools," "partner schools," "clinical schools," and "school-university partnerships."

The researcher's purpose was to examine whether two identified theories of professional development schools had, in fact, materialized and resulted in changed culture and practice at six Colorado high schools. In general, there was a lack of empirical study that clarified the theorized potential of school-university partnerships; that measured the extent to which the theories had or had not been realized; and that described specific attributes of the theories that contributed to a changed culture. In other words, the study examined whether the participation in a professional development school had resulted in changes in the business of teaching and learning at the school sites.

History of Professional Development Schools

During the last two decades, calls for structural reform of the American system of public education have inundated the schools, mass media and political agendas. Teacher educators, legislators and the general public questioned the value, productivity and

relevancy of teacher preparation programs, as well as the outcomes of PreK-12 education (Goodlad, 1990; Stallings & Kowalski, 1990). According to Mantle-Bromley (2002) strengthening relationships between public schools and higher education evolved as a strategy for improving both teacher preparation programs and the quality of PreK-12 education. Theories regarding the beneficial outcomes to both PreK-12 education and universities were proposed by several parties (Holmes Group, 1986; Goodlad, 1990; Carnegie Forum, 1986; Darling-Hammond, 1994; Goodlad, Soder, and Sirotnik, 1990).

In 1986, a group of seventeen educational deans of major research institutions formed a collaborative known as the Holmes Group. Their first published report: *Tomorrow's Teachers* (1986) defined the difficulties of improving teacher preparation programs. According to the authors, a new approach to teacher preparation was needed. In its second report, *Tomorrow's Schools* (1990), the Holmes group defined the nature of a new collaboration between schools and universities, known as professional development schools. The professional development schools would be designed to resemble teaching hospitals. Teachers would be involved in the professional preparation of new teachers; university staffs would be involved with schools focusing on solving difficult problems. The professional development schools would increase the professional status and relevance of both PreK-12 educators and university faculty, resulting in the elevation of teaching as a true profession. Participation in the collaboration would increase in status of both teachers and university faculty, and result in rewards for the professional teacher. Ultimately, the goal of the partnership was to create a new institution where experts and beginning practitioners from both universities

and schools created a learning community resulting in improved education for students.

These collaboratives would be designed around six identified principles:

1. Teaching and learning for understanding.
2. Creating a learning community.
3. Teaching and learning for understanding for everybody's children.
4. Continuing learning by teachers, teacher educators, and administrators.
5. Thoughtful, long-term inquiry into teaching and learning.
6. Inventing a new institution. (Holmes Group, 1990, p.7).

In a similar timeframe, John Goodlad published the results of an important study of the teaching profession, *Teachers for Our Nations Schools* (1990). This publication was followed by an examination of teacher preparation programs, *Educational Renewal: Better Teachers, Better Schools* (1994). Goodlad urged schools and university educators to engage in partnerships that would improve K-12 education, but also impact and change the culture of both institutions in a way that mutual benefit would result. The National Network for Education Renewal (NNER) was established in 1986. NNER provided technical and human resources to put into practice the belief that improvement in teacher preparation and improvement in PreK-12 education should happen simultaneously. Goodlad & Soder (1992) proposed the creation of a new infrastructure that would support a network of school-university partnerships focused on simultaneous renewal of the university and school and result in improved education for youth. Schools and universities engaged in these partnerships would address four partnership goals: educate youth, prepare educators, provide professional development and conduct inquiry into school problems (Goodlad, 1994). The Carnegie Forum, an independent foundation-

supported task force also addressed improved teacher preparation in its report: *A Nation Prepared: Teachers for the 21st Century* (1986).

The persuasive arguments of these educational leaders resulted in the establishment of what is now commonly known as the professional development school (PDS) or partner school. Early theories defined the professional development schools as a place where preservice teachers, practice teachers, practicing teachers and university educators from the college of education, as well as the college of arts and sciences, would work together, “constantly reviewing and improving the whole” (Clark, 1999, p. 4). Various educational groups, politicians, and educators supported the concept of simultaneous renewal leading to reform of PreK-12 schools. Collaboratives that shared the vision and goals of the professional development schools were known by various names:

Professional Development Schools (the Holmes Group); Professional Practice Schools (American Federation of Teachers); Clinical Schools (Carnegie Report); and Partner Schools (National Network for Education Renewal). Various professional organizations estimate the number of partnerships to exceed 600, with the majority of partnerships involving universities and elementary schools. Currently, according to Abdal-Haqq (1998) PDSs are found in urban, suburban, and rural settings in at least 38 states and several foreign countries (Ariav & Clinard, 1996; Duquette & Cook, 1994; Gardner & Libde, 1995; King & Mizoue, 1993; Papoulia-Tzelepi, 1993). The number of PDS networks has expanded in recent years to the point that the National Council for Accreditation of Teacher Education (NCATE) has seen a need to develop formal PDS standards. A collection of articles published in 1995 (Osguthorpe, Harris, Harris, & Black) addressed four goals of school-university partnerships: improved student

learning, strengthening of teacher education, promoting professional development and supporting collaborative inquiry. A more recent review of research (Valli, Cooper & Frankes, 1997) expanded the list to seven targets for improvement in partnership settings:

- Teacher education
- Teaching and learning
- The educational mission
- Equity
- Professional development
- Inquiry
- Collaboration

These seven targets were consistent with the body of research identifying goals for PDSs in general. Professional development schools reflected a different type of collaboration than had occurred between schools and universities in the past (Goodlad & Soder, 1992). Although these new partnerships varied in nature and scope, all were committed to reform of schools and universities. Specifically, the hierarchical nature of both institutions would have to be dismantled for a new, mutually beneficial institution to be formed.

PDS Theories

Increasing pressure to hold educators accountable for school improvements has increased over the last two decades. The concept of “simultaneous renewal” of both PreK-12 education and teacher education surfaced as an essential component of improvement efforts. Goodlad theorized that the implementation of school-university

partnerships could result in mutually advantageous outcomes, leading to renewal of both schools and universities. In general, PDS partners committed to the following goals:

1. Improve the quality of instruction for PreK-12 students, the preparation of prospective teachers, and the continuing education of professional educators.
2. Provide a research base that informs the teaching profession through study and inquiry.
3. Encourage the school to undergo a structural reform that allows for the collaboration between school and university faculty; supports changes in teaching and learning; and is mutually beneficial.

In Johnston, Brosnan, Cramer, and Dove's description of PDS goals (2000), schools and universities were called on to counter the structural norms of both institutions. All participants were encouraged to challenge the status quo and to rethink roles and procedures within the two settings. Mantle-Bromley suggested that participation in collaborative inquiry within a unified setting provided the greatest opportunity for PDS goals to occur (Guadarrama, Ramsey, & Nath, 2002, p. 19). In this way, PDSs differed from previous attempts to reform either schools or colleges in that the previous reform efforts were initiated and implemented separately, despite the seeming interconnectedness of the institutions. For example, early laboratory schools, located primarily on college campuses, focused mainly on pre-service education, and lacked the capacity to replicate new approaches. The portal schools of the 70s were designed to serve as a focus for school-university interaction in order to implement new and promising curricula and practices (Stallings & Kowalski, 1990). Both models, the lab

school as well as the portal school failed in creating an environment in which restructuring was characteristic of the work being done.

What, then, is the difference between the school-university partnerships of the past and current partnership efforts known as PDSs? The following section will identify and describe early theories of professional development schools.

The works of Goodlad (1990), the Holmes Group (1986, 1990), and the Carnegie Forum (1986) provided change theories—beliefs about what could or would happen as the result of schools and universities joined together to improve schooling and teacher preparation. PDSs were seen as vehicles for change, not only in the preparation of new teachers, but in the day-to-day cultural norms of schooling. Goodlad believed that the only way for teacher preparation to improve was to change the existing cultural norms of both the school and university settings. Practitioners and theorists, as well as university-based educators from various schools and colleges would examine practices from a new integrated perspective. The Carnegie Forum and the Holmes Group also viewed collaboration as the vehicle for improvement, but primarily resulting in the professionalization of teaching. The Carnegie Forum believed that teaching had to be made more attractive to high skilled potential teachers. The Holmes Group believed that the interchange of roles between school teachers and university educators would result in systematic examination and evaluation of teaching and schooling. The result would be improved education for students which could then be replicated by schools across the nation. The opportunity to create a new institution would result in increased relevancy of the work of teachers and teacher educators.

Although the three primary groups advocating school-university partnerships differed somewhat in their overall purpose, their theories of change were similar. In a comprehensive study of nine PDSs, Mantle-Bromley (2002) summarized and documented early PDS theories as presented by influential researchers including Goodlad, the Holmes Group and the Carnegie Forum. The theories are summarized here and form the basis of the survey items prepared for this study.

Theory One: Improved Preparation of Teachers

Early theories proposed by Goodlad (1990) the Holmes Group (1986) and the Carnegie Forum (1986) suggested that the preparation of new teachers would be improved if preservice teacher candidates spent more time in the PreK-12 setting prior to their student teaching experience. In addition, the development of best teaching practices would be enhanced by the on-going discussion with practitioners of the relevance and practicality of the teaching theories they were learning. In a PDS, university educators would be present at school sites, engaged with PreK-12 practitioners in collaboratively designed teacher preparation programs. New teachers would benefit from increased opportunities to practice, followed by reflection and discussion with the school mentor, university teacher-educator and other beginning teachers. In many cases, courses that were regularly taught in the university settings were moved to school settings. This helped to create a laboratory environment in which instruction on teaching and learning could be sustained and in which the beginning teacher would receive support in the early stages of a teaching career. School personnel would take stronger ownership of the teacher preparation programs, and their expertise would be highly regarded by university

faculty. Teacher knowledge would be valued and all teachers would begin to develop leadership capacity.

According to Darling-Hammond and Cobb (1996), 50% of teachers leave the profession in their first five years of service. PDSs attempted to alter traditional teacher-preparation norms and attrition rates in that a different set of expectations was created for teacher educators and practitioners. PDSs, through the intentional collaboration of university and school-based educators provided an environment for teachers and teacher-candidates to more deliberatively share in planning and delivering exemplary education for students.

PDSs were school-wide innovations which created “an overall environment for professional practice, professional collegueship and for ongoing collective work and inquiry” (Darling-Hammond, 1994, p. 8).

Theory Two: Teacher Professionalization

In May 1985, the Carnegie Forum on Education and the Economy announced the appointment of a panel to develop plans to make teaching a “true profession.” The panel’s report, *A Nation Prepared: Teachers for the 21st Century*, put heavy emphasis on teacher professionalization. In a similar timeframe, the heads of the National Education Association and the American Federation of Teachers announced major plans to “professionalize” the occupation (Goodlad et al. 1990, p. 37). *Tomorrow’s Teachers*, a report of the Holmes Group (1986) discussed the reform of teacher education, with emphasis on making teaching a profession.

The academic literature on professions and professionalization is vast. In simple terms, the word “professionalization” refers to bestowing upon the teaching profession status and prestige that commonly defined other accepted professions, for example, the practice of medicine or law. Professions, according to Goodlad et al. (1990) are characterized by autonomy, prestige, status, and rewards (both pecuniary and otherwise) (p. 44).

Historically, teaching roles in a university were perceived to hold higher status than a teaching role in Pre-K-12 schools. Mantle-Bromley (2002) theorized that recognition and use of teacher knowledge would lead to increased empowerment of teachers, resulting in more relevant research on and about teaching mutually benefiting both institution. Theorists believed that teachers involved in the preparation of educators, as well as the on-going development of the profession, would find a greater sense of personal purpose. Research documents that personal purpose is critical to organizational change.

In addition to the research agenda, teacher professionalization theory also identified career-long professional development for teachers as essential for the development of the teaching profession. In a PDS, the continuing education of teachers was as important as the initial teacher preparation (Darling-Hammond, 1994). Teacher development in a PDS setting was proposed as a collaboration between teachers, administrators and university staff. Teachers would plan professional development, contribute to school-based decision-making and influence the outcomes of schooling. Clark (1999) listed several benefits of PDSs, including benefits to the teaching profession: veteran teachers in PDSs exhibited more reflective practice than teachers in

other schools, teachers working in PDSs were more likely to pursue graduate study, and teachers in PDSs engaged more frequently in innovation and reflective practice.

Professionalization theory also presented the notion that there be newly-created teacher-advancement opportunities for teachers (other than the traditional move into administration) enabling teacher-leaders to develop in non-traditional ways. In the traditional setting, teachers experienced limited options for advancement or expanded roles. Typically, a desire to advance in the profession required a move to an administrative assignment. PDS theory proposed that opportunities for career advancement be expanded to include other options. Teachers were encouraged to publish their research, to participate in teacher preparation at both the university and school setting, and to take on leadership roles at the school. Teacher leaders would benefit from institutionalized rewards. A new type of advancement system for teachers would be created. Clark (1999) defined potential rewards for teacher leaders to include different career opportunities, recognition by the institution of higher education for service, opportunities to participate in professional meetings, and increased compensation.

Teitel (1997) identified that teachers and university personnel who work in PDSs are frequently referred to as “bi-cultural” or “boundary-spanners” because they cross conventional boundaries between school and university cultures (cited in Abdal-Haqq, 1998, p. 22). Teachers in PDSs may take on roles as teacher-facilitators; site coordinators; mentors or adjunct university faculty. Darling-Hammond (1994) and the Holmes Group (1986) advocated moving teaching to a profession that sets its own standards of practice and be accountable to students, parents and communities. Attributes of teacher professionalization identified by teachers in PDS settings included greater

willingness to take instructional risks and engage in innovative practice; increased intellectual energy; reduced isolation; and increased confidence (Crow, Stokes, Kauchak, Hobbs, & Bullough, Jr., 1996). Trachtman's (1996) survey of 28 PDS partnerships (cited in Abdal-Haqq, 1998) documented a number of outcomes for teacher leadership through PDS involvement: greater confidence in their own knowledge; improved classroom practice and involvement in determining their own professional development needs. "In the PDS it appears as though teachers' growth comes from and through teachers' practice; learning takes place in the context of thinking and acting as a teacher" (p. 24). Teitel defined teacher-leadership in PDSs more broadly with new and substantial work done outside the classroom. Teachers' new work included research, training, decision-making and governance.

Theory Three: Improved Regularities of Schooling

The professional development school required significant changes in the roles, relationships and structures of both the school and university. This section will describe the changes in the regularities of the school, as theorized by the Holmes Group, Goodlad, and others who have proposed PDSs as a route to reinvented schools.

Efforts among public schools and universities to create PDSs involved establishing conditions which sustained collaboration between culturally and bureaucratically different institutions that shared the common goal of supporting the teaching profession. Historically, efforts to collaborate between schools and universities had produced disappointing or short term results (Stallings & Kowolski, 1990). In 1984, Seymour Sarason described his thoughts on the success of collaboratives: "I had come to

see these collaborations as instances of ‘two cultures’ interacting—that is, two cultures misunderstanding and clashing with each other” (p. 19). Factors that contributed to the difficulty of creating long-term successful collaboratives were the differences between the two institutions in their operating norms, work styles, perspectives from which the work was viewed, and perceived status (Clark, 1997).

Fullan (1982) identified that educational change required not only good ideas, but theories of change to guide the process. The development of a school-university partnership was not an easy process. The partnership required two very different groups of professionals, who came from different organizational structures to collaborate for the mutual benefit of both. A commonly accepted idea among proponents of professional development schools was the belief that improved pedagogical theory would emerge from collaborative effort examining teaching and learning. In order for the collaborative process to occur, structures and culture of both institutions had to be changed, replaced by a structure where both school and university staff became “practitioner-scholars” (Petrie, 1995). Faculties in professional development schools actively sought to alter the norms of schooling. Teachers, used to working in relative isolation, opened up their classrooms to university faculty members and teacher candidates. Teachers shared in research projects and shared in the responsibilities for professional development, teacher preparation and service on school governance committees (Clark, 1997).

The customary role of teachers had been one of disempowerment (Byrd & McIntyre, 1999). Teachers were often perceived as transmitters of curriculum that had been dictated from somewhere above. Aronowitz and Giroux (1993) described how many reform efforts still marginalized teachers to the roles of high-level clerks or

specialized technicians. Professional development schools sought to raise the status and relevance of the teaching profession by equalizing power between teachers, administrators and university faculty (Abdal-Haqq, 1998). Seymour Sarason identified the existence in schools of "power relationships" and their impact on student learning.

How is power equalized in the institution of the school and/or the university?

Kreisberg (1992) described the imbalance of the power relationship in schools.

Typically, the university researcher entered the relationship with higher perceived status.

He described the relationship between teacher and researcher as a "power-over"

relationship. Power-over relationships were characterized by an imbalance in resources

(such as time and money), unequal positions in the perceived hierarchy, unnecessary

competitiveness, and cultural barriers. Changing to a "power-with" relationship required

changes in the traditional relationships and structures.

In a PDS, time, money and information were allocated to support the development of a learning community, where all adults were expected to learn and share in the support of others' learning. Teachers took on roles as researchers, collaborating with university researchers on real problems. Research was jointly defined and implemented, requiring the expertise of all participants. Teachers became teacher-leaders, serving on governance, staff development or other planning committees. Isolation was reduced as teachers opened their doors to university faculty and teaching candidates. Roles interchanged, with university staff teaching teacher candidates at the school sites, while teachers participated as adjunct faculty in schools of education. Shared study, like the team learning Senge (1990) described, was an important means for creating the common language and respect needed for on-going collaboration.

According to Darling-Hammond (1994), in PDSs, public school and university faculty interacted in a conscious effort to merge theory and practice in order to support the development of teaching professionals, and improve learning for students. Further, to meet the demands of a collaborative work environment, the organizations themselves changed to sustain the learning community. It is important to note that PDSs are located in schools, not within the universities, therefore, the demands of accommodating the new institution generally fall on the shoulders of PreK-12 teachers and administrators.

Theory Four: Improved Regularities of the School of Education

University-based educators, as well as PreK-12 teachers found that PDSs represented a particular vision of change. Valli et al. (1997) examined PDSs and categorized the changes as first-or second-order changes (cited in Abdal-Haqq, 1998, p. 64). First order changes were those which altered existing structures and relationships in order to enable second-order changes (those that introduced new goals, structures and roles) to occur. For university-based educators, first order changes required several components. Since some elements of teacher education moved at least in part to the school site, schedules, resources and personnel had to be shifted. Deliberate efforts at communicating and collaborating had to be implemented to support the new venture. University-based teacher education moved from a skills-driven, top-down format to a model that was more systematic and influenced by the context in which teachers work (Abdal-Haqq, 1998, p. 65). It was important that university educators established collaborative relationships among content specialists, education specialists, and practitioners, in order to broaden the knowledge base of teacher education. Best practices

would emerge from the integration of theory, research and practice. Goodlad pointed out that universities typically valued scholarship resulting in publication over work in the field, which penalized faculty for getting involved in the clinical phases of teacher education. According to Goodlad (1992) one of the ten “lessons” of school-university partnerships involved dealing with schools of education. Goodlad observed that the university side is the more intractable, and the primary culprit “is a misguided reward system that is an outgrowth of misplaced values, status deprivation, and identity crisis” (p. 22).

In order for the vision of the professional development school to be met, higher education had to tackle not only the structure of the teacher education programs, but the issues related to advancement and tenure within the universities themselves.

Components Required to Sustain PDSs

In what way would the theorized potential of successful PDS collaboratives be contextualized in the school setting? Goodlad, Darling-Hammond, Clark, Petrie, Abdal-Haqq described specific components of PDSs. They are presented below in a synthesized description:

1. Institutional Collaboration: The joining together of professionals from various institutions for the purpose of shared learning and mutual benefit. Professionals from the School of Education, the College of Arts and Sciences, and the school site create a community of learners committed to collaborative work and engaged in the development of exemplary programs and schools.

2. Allocation of Resources: Time, facilities and finances are allocated to support partnership activities and to recognize varying roles of professionals within the partnership. Resources are allocated to address priorities identified by all stakeholders with respect to the partner school concept.
3. Research and Inquiry: Teachers, along with other professionals, participate in research and inquiry related to school-based concerns. By taking part in research and inquiry, teachers renew their knowledge and skills related to teaching. University faculty as well as teacher candidates gain new perspectives as they work with school staffs to address school issues. In addition, all share new learning, contributing to the profession's "fund" of knowledge.
4. Interchange of Roles: Faculty members, classroom teachers and preservice candidates work together to provide exemplary education and training to future teachers. University and school personnel are seen as equal partners, and roles may frequently be interchanged. Teachers may share in the university classroom instruction of preservice candidates. University personnel may facilitate a study team of teachers and teacher candidates at the school site. All participants benefit from simultaneous renewal.

This study examined six PDS partnerships, specifically seeking evidence of the above components in each partnership setting.

Summary Overview of PDS Movement

Slavin (1989) described the pendulum swing of reform fads in schools—characterized by “early enthusiasm, widespread dissemination, subsequent disappointment, and eventual decline” (cited in Petrie, 1995, p. 103). The effort to translate PDS theory into practice ran into predictable implementation problems in schools because of the complexities and peculiarities of each practice setting (Petrie, 1995, p. 102).

What evidence exists that PDS theory has provided the framework for sustaining successful partnerships and on-going school renewal? According to Petrie (1995) after several years of sustained effort in a PDS site, teachers and administrators should be asking for proof that theorists’ promises of educational improvement through the establishment of PDSs are coming true:

given the enormous complexity of education as an enterprise and the difficulty of adapting general academic principles to a particular setting, it is likely that there is little progress in educational outcomes that one can point to at these sites. Process changes are going to be abundantly evident because of all the restructuring taking place, but it may be less evident that the restructuring has lead to improvements in the educational deficiencies that spurred school people to embrace the reform in the first place. If old reform patterns hold, teachers and administrators are likely to grow weary of the sustained effort that is required in a PDS site given the minimal or equivocal results. (p. 103)

The literature on Professional Development Schools indicated that efforts to create partnerships had proceeded to the point at which individual schools and universities have agreed that PDSs have been initiated, but not to the point where there have been documented improvements in student or teacher learning and understanding as a result of the PDS innovation (Abdal-Haqq, 1992; Winitzky, Stoddart, & O'Keefe, 1992; cited in Petrie, 1995, p. 35). The literature also drew attention to several practical obstacles to PDS reform—costs, time constraints, autonomy, cultural clash. Even when provisions were made to accommodate the requirements of a PDS, successful outcomes were not assured. The parties involved in the reform effort may not have fully understood the goals of the reform. In addition, the amount of literature documenting the difficulty of school restructuring is vast. Darling-Hammond (1994) described the challenge of attempting to change the behavioral and programmatic regularities of educational institutions. The reformer would ultimately come up against the “inertia of the status quo” that inhibited movement away from “what is” (p. 113). Zeichner (1992) suggested that the “trappings” of collaboration and reflective practice may have concealed a business-as-usual reality (cited in Abdal-Haqq, 1998, p.65). Abdul-Haqq's review of literature revealed that there had been more progress in bringing about transformational change in teacher education than in the context of PreK-12 teaching and student learning. However, even in teacher development, fundamental changes had not been widespread in some areas (p. 64).

What knowledge is needed to establish and maintain successful partnerships? Have theorists succeeded in defining goals and conditions of professional development schools? What of the early theories informed the development of successful

collaboratives? What aspects of early theories would be evident in observed practices in successful partnership sites? PDS research was lacking in studies that helped to expand the knowledge base on teaching, learning or critical elements of PDSs.

Three reviews examined PDS literature. Of the three, Teitel's (1996) review was the most comprehensive. Book (1996) and Valli et al. (1997) reviewed PDS research literature. While there was growth in the research literature, the majority of the studies tended to focus on changes in preservice teacher attitudes and beliefs or on implementation processes. Abdal-Haqq (1998) identified that more recent PDS literature provided a clearer picture of the processes and activities associated with PDSs; but there remained a lack of evaluation studies that documented outcomes for schools or the learners within them (p. 8).

The following study of six Colorado high schools engaged in school-university partnerships (PDSs) was designed to examine early PDS theories and determine whether theories had been realized in the partnership settings. The study sought to match the practices suggested by early PDS theory with documented practices in the schools.

Two guiding questions were used to explore the professional development school literature and to guide this study:

In cases where PDS partnerships had been institutionalized,

1. To what degree, if any, had intended outcomes of PDS partnerships regarding increased teacher professionalization occurred?
2. To what degree, if any, had intended outcomes of PDS partnerships regarding improved regularities of schooling occurred?

In conclusion, this review of literature presented information about key aspects of professional development schools and the underlying theories guiding their implementation. These included summaries of the four early PDS theories: improved teacher preparation, improved teacher professionalization, improved regularities of the schools and improved regularities of the university. Questions arose in which the lack of research regarding the impact of partnership involvement on school sites was evident. This study examined the beliefs of high school teachers, teaching in PDS sites, in regard to the changes they had experienced as practitioners in PDS collaboratives.

Chapter 3

METHOD

This research study's parameters will be addressed within the following categories: purpose and research questions, procedures, research design and rationale, data analysis, assumptions and limitations, and summary.

Purpose and Research Questions

In the early eighties, researchers proposed that school university partnerships move from informal collaborations to formal partnerships known as professional development schools. These partnerships would promote the interests of both schools and universities and focus their efforts on specific mutually beneficial goals. The partnerships would be formalized through agreements between the university and the school focused on intended outcomes: increased teacher professionalization, improved regularities of schooling, improved regularities of universities' schools of education and improved teacher preparation. By the mid-nineties, several hundred schools and universities across the United States had entered into partnerships known as "professional development schools." Although much research had been done in which the effect of school-university partnerships on teacher preparation programs had been completed, limited research had been conducted concerning the impact of school-university partnerships on the PreK-12 school settings. In addition, limited research examining early theories of partnerships compared to the current impact of partnerships on school

settings had been done. The purpose of this study was to examine whether the participation by six Colorado high schools in school-university partnerships known as professional development schools had resulted in theorized changes: increased teacher professionalization and improved regularities of schooling within the six school settings.

The following research questions were considered in the study:

1. What are the relationships between teachers' years experience in education, level of education and level of involvement in partnership activities and teacher professionalization?
2. What are the relationships between teachers' years experience in education, level of education and level of involvement in partnership activities and improved regularities of schooling?

Procedures

The following procedures were utilized in conducting the study:

1. Identification of the study population.
2. Research design.
3. Development of the survey instrument.
4. Determination of validity and reliability of the survey instrument.
5. Data analysis.

Identification of the study population

The study involved surveying teachers from schools that had been formally involved and recognized as partnership schools. Requirements for participation in the study included the following:

1. The research setting was a high school.
2. The research setting had been involved as a partnership school for a minimum of three years.
3. The schools chosen for the study shared similar demographic characteristics.
4. The schools were members of the Colorado Partnership for Education Renewal, a statewide consortium of schools that are members of the National Network of Educational Renewal.

Subjects for the study included all certified teachers within the selected schools. In addition, school media specialists and school counselors were asked to participate. Although participation levels and requirements of teachers to be involved in partnership activities varied from site to site, teachers had the greatest opportunity to be involved in a variety of ways and would have greatest knowledge of the presence of theorized outcomes (teacher professionalization and improved regularities of schooling) at a particular site. In addition, partnerships involving high schools are expected to demonstrate collaboration within the partnership across several colleges within a university (in addition to the university's school of education) due to high school teachers' specializations in particular content areas. Demographically, the schools were of similar size (1500 minimum student enrollment) similar socioeconomic status, all had

been participating members of the Colorado Network for Education Renewal for three years or longer. (Research identified a minimum of three years participation in a change initiative to overcome implementation difficulties.) As participants of CoPER, the schools agreed to the basic tenets of the NNER Postulates (Appendix A), therefore the researcher assumed some commonality of purpose that would provide consistency within and across the schools in regard to partnership activities. It was determined that to examine schools that had formed partnerships with a specific university would yield an inadequate sample, therefore, the number of universities involved in the partnerships that were studied was not a determining factor in selecting subjects for the study. Seven of thirteen Colorado high schools engaged in partnerships and participating in CoPER were identified as eligible for the study. One high school declined participation; the remaining six agreed to participate in the study. Teachers were asked to voluntarily complete a survey instrument.

Research Design and Rationale

The study utilized a comparative research approach. In the comparative approach, the values or categories of the independent variable are used to split the participants into groups which are then compared to see if they differ in respect to the average scores on the dependent variable. This approach allowed the researcher to examine the relationship between the attribute independent variables (years experience in education, level of education and level of involvement in partnership activities) on the dependent variables. The dependent variables were the components of partnerships that the review of literature identified as essential elements of a professional development

school partnership and illustrative of the two theories (teacher professionalization and improved regularities of schooling) under study: institutional collaboration, resource allocation, research and inquiry and interchange of roles.

When there is more than one independent variable in a study, the design is called a factorial or complex design. The number of levels of each independent variable becomes important in the description of the design. Since respondents were assigned to only one level of each independent variable, the design utilized for the study was a between groups factorial design. Stevens (1992), as reported in Mertler and Vanatta (2002), explained the need for the inclusion of multiple dependent variables when comparing groups based on differing characteristics:

1. Any worthwhile treatment or substantial characteristic would likely affect subjects in more than one way; hence, the need for additional criterion (dependent) measures.
2. The use of several criterion measures permits the researcher to obtain a more "holistic" picture, and therefore a more detailed description of the phenomenon under investigation. This stems from the idea that it is extremely difficult to obtain a "good" measure of a trait from one variable; multiple measures on variables representing a common characteristic are bound to be more representative of that characteristic.

(p. 119-120)

Development of the Survey Instrument

Although their influential work on validity involved experimental designs, the concepts of Bracht and Glass (1968) are applicable in other types of quantitative research (Gall, Gall & Borg, 1998). Bracht and Glass stated that the operational definition of each dependent variable is relevant to the generalization of the study's results. In this study the operational definition of the dependent variables was the score on a questionnaire that asked participants to rate the degree to which professional development school elements were present at their sites. Use of a survey instrument is supported in educational research methods and is appropriate when examining abstract constructs (theories). The survey instrument identified four essential elements of PDS partnerships: collaboration, allocation of resources, research and inquiry and interchange of roles. These elements acted as the dependent variables in the study. Attributes of the two theories were identified, so that respondents would recognize PDS theory operationalized at their sites. Five attributes were identified which related specifically to teacher professionalization: acknowledgment of teacher knowledge, opportunity for professional development, opportunity for innovation, increased teacher decision-making, and opportunity for career advancement. Four attributes were identified to illustrate improved regularities of schooling: reduced teacher isolationism, regular mechanisms for feedback and reflection, inquiry process and data driven decision-making, and questioning of routinized practice. Each of the respondents was asked to review the nine attributes of the theories and measure the degree to which they agreed or disagree that each partnership element had resulted in increased presence of the identified attributes within their site. The scale used was an interval scale (Likert response scale) with a 1-4 rating:

1. = Strongly disagree
2. = Disagree
3. = Agree
4. = Strongly Agree

In addition, an option to identify a statement as “Not Applicable” was included to allow for variation of partnership activities across six school settings. There were a total of 36 responses from the survey (nine attributes for each of the four elements that were measured.) Table 3.1 summarizes survey responses.

Table 3.1

Responses to Survey Questions on the Assessing School Partnerships Questionnaire

Factor	Strongly disagree		Disagree		Agree		Strongly Agree		NA		Missing	
	n	%	n	%	n	%	n	%	n	%	n	%
<u>Component: Collaboration</u>												
1	2	2.4	14	11.0	70	55.1	31	24.4	4	3.1	5	3.9
2	2	1.6	15	11.8	60	47.2	41	33.6	4	3.1	5	3.9
3	1	.8	22	17.3	72	56.7	23	18.1	4	3.1	5	3.9
4	4	3.1	32	25.2	56	44.1	21	16.5	7	5.5	7	5.5
5	11	8.7	33	26.0	54	42.5	16	12.6	8	6.3	5	3.9
6	10	7.9	34	26.8	49	38.6	18	14.2	11	8.7	5	3.9
7	6	4.7	21	16.5	58	45.7	32	25.2	5	3.9	5	3.9
8	4	3.1	23	18.1	57	44.9	33	26.0	4	3.1	6	4.7
9	9	7.1	18	14.2	65	51.2	24	18.9	6	4.7	5	3.9
<u>Component: Resource Allocation</u>												
1	6	4.7	27	21.3	63	49.6	13	10.2	11	8.7	7	5.5
2	5	3.9	19	15.0	63	49.6	24	18.9	9	7.1	7	5.5
3	5	3.9	25	19.7	66	52.0	13	10.2	11	8.7	7	5.5
4	9	8.1	41	32.2	47	37.0	9	7.1	12	9.4	9	7.1
5	10	7.9	30	23.6	55	43.3	12	9.4	13	10.2	7	5.5
6	9	7.1	25	19.7	57	44.9	18	14.2	11	8.7	7	5.5
7	9	7.1	21	16.5	63	49.6	17	13.4	10	7.9	7	5.5
8	8	6.3	31	24.4	52	40.9	14	11.0	14	11.0	8	6.3
9	8	6.3	26	20.5	59	46.5	13	10.2	14	11.0	7	5.5

Factor	Strongly disagree		Disagree		Agree		Strongly Agree		NA		Missing	
	n	%	n	%	n	%	n	%	n	%	n	%
<u>Component: Research and Inquiry</u>												
1	2	2.4	20	15.7	60	47.2	24	18.9	14	11.0	6	4.7
2	3	2.4	22	17.3	59	46.5	24	18.9	13	10.2	6	4.7
3	4	3.1	16	12.6	63	49.6	23	18.1	14	11.0	7	5.5
4	8	6.3	29	22.8	57	44.9	8	6.3	18	14.2	7	5.5
5	12	9.4	34	26.8	46	36.2	9	7.1	18	14.2	8	6.3
6	5	3.9	24	18.9	58	45.7	18	14.2	15	11.8	7	5.5
7	4	3.1	19	15.0	60	47.2	23	18.1	13	10.2	8	6.3
8	6	4.7	24	18.9	60	47.2	15	11.8	14	11.0	8	6.3
9	5	3.9	19	15.0	68	53.5	14	11.0	14	11.0	7	5.5
<u>Component: Interchange of Roles</u>												
1	4	3.1	11	8.7	61	48.0	35	27.6	8	6.3	8	6.3
2	3	2.4	18	14.2	57	44.9	33	26.0	9	7.1	7	5.5
3	2	1.6	17	13.4	60	47.2	33	26.0	8	6.3	7	5.5
4	7	5.5	29	22.8	48	37.8	24	18.9	12	9.4	7	5.5
5	11	8.7	23	18.1	52	40.9	17	13.4	16	12.6	8	6.3
6	2	1.6	17	13.4	62	48.8	29	22.8	10	7.9	7	5.5
7	4	3.1	18	14.2	60	47.2	30	23.6	8	6.3	7	5.5
8	5	3.9	28	22.0	57	44.9	18	14.2	10	7.9	9	7.1
9	6	4.7	15	11.8	65	51.2	22	17.3	10	7.9	9	7.1

Participants were also asked to respond to three demographic questions. The first question asked participants to identify the number of years they had worked in education (1-3 years, 4-10 years, 10+ years). The second question asked participants to identify the level of education they had achieved (Bachelor's Degree, Master's Degree, Doctorate Degree or other.) There was an insufficient number of responses in the categories of "doctorate degree" and "other." These two categories were deleted from the final analysis of the data. The final question asked respondents to identify their perceived level of involvement in partnership activities: minimal, average or high. Table 3.2 describes the levels of the three independent variables.

Table 3.2Demographic Characteristics of Participants

Characteristic	n	%
Level of Education		
Bachelor's Degree	50	39.4
Master's Degree	73	57.5
Doctorate Degree	2	1.6
Missing	2	1.6
Level of Years Experience		
1-3 years	15	11.8
4-10 years	28	22.0
> 10 years	82	64.6
Missing	2	1.6
Level of Involvement		
Minimal	37	29.1
Average	53	41.7
High	36	28.3
Missing	1	0.8

Finally, two open-ended questions were included in the survey to allow each respondent to comment on the unique characteristics of his/her school's partnership:

- a. Expand on any of the four components to further explain the ways in which your partnership has achieved the expected outcomes.
- b. Toward which theorized outcomes would you like to see greater progress by your partnership and why?

A copy of the survey is included in Appendix B.

Determination of Validity and Reliability of the Survey

In order to establish content validity, a pilot test of the instrument was conducted.

According to Gliner and Morgan (2000) one method to address content validity is to establish a panel of experts to review the test items for representativeness of the construct(s) under study. Six well-qualified volunteers, who resembled the type of respondents who were the subjects of the main study, were asked to complete the survey and provide feedback on the accuracy of the statements and validity of the instrument. The volunteers included a university coordinator of a PDS partnership, the director of research for a school district involved in partnership activities, two high school teachers who had extensive experience in partnership activities and two “newcomers” to a partner school. Each was asked to examine the attributes used to describe the two PDS theories. In addition, each was asked to read the definitions of the four PDS elements for clarity and specificity. Each panel member was informed of the sample group to be studied, significance of the study, and all definitions used in the survey instrument. Each panel member was interviewed for feedback regarding the survey instrument. The results of the panel of experts were summarized and revisions were made to the instrument. The panelists provided feedback on the level of difficulty of the instrument and the degree to which the environment and length of time needed to complete the survey affected their performance. Construct validity was established through the initial study of theory and through a comprehensive review of literature.

The researcher conducted training of the survey administrators by telephone after they had received the surveys at their sites. (The researcher requested to administer the surveys in person at each site, but the request was declined from each participating

school.) The survey administrators were all employees who had a high degree of knowledge and participation with their school's partnership. The measurement relied upon teacher perceptions in reporting, so internal consistency was low. Common agreed-upon terms, drawn from the literature review, were used, so face and content validity were high. Teachers completed the survey on a voluntary basis, which accounted for the low rate of return. See Table 3.3 for survey return rates.

Table 3.3

Survey Return Rates

Partnership #	Surveys Distributed	Surveys Returned	%
1	72	28	38
2	84	10	11
3	68	12	17
4	101	37	37
5	76	22	29
6	73	18	25

The study was limited to Colorado high schools that shared similar demographics, were members of the National Network for Educational Renewal, and had participated as a professional development school for a minimum of three years. A quantitative research approach was utilized in order to fully analyze data. While the results may not be highly generalizable, the results will be of interest to demographically similar schools throughout the country that are engaged in professional development school collaboratives, or are contemplating participation in a professional development school partnership.

When using a survey in which the respondent has multiple choices, such as a Likert scale, the Cronbach's alpha is the method of choice to determine interitem reliability in the area of educational research. Cronbach defined that reliability "always refers to consistency throughout a series of measurements" (reported in J. R. A. Santos, *Journal of Extension* [on-line version] (1999). If the outcome measure is not reliable, the researcher cannot accurately assess the results of the study. When it is not possible to administer the instrument more than once, the researcher must use a reliability measure that adequately determines internal consistency. Cronbach's alpha can be used when one has data from several items that are combined to make a composite score. However, Cronbach's alpha is only reliable when the instrument is measuring one construct, therefore, additional information indicating that there is only one underlying dimension (construct) being measured is necessary. For this study, the researcher utilized exploratory factor analysis to make that determination.

Factor analysis allowed the researcher to reduce the number of overlapping measured variables to a much smaller set of factors. The factors correspond to constructs (unobservable latent variables) of a theory that help the researcher examine and understand phenomenon. According to Green, Salkind and Akey (2000), when the focus of the study is to measure two constructs (teacher professionalization and improved regularities of schooling) at least eight measures should be included in factor analysis, four measures (for each of the two constructs) that might emerge as factors from the analysis. This study utilized nine measures, five to measure teacher professionalization and four to measure improved regularities of schooling.

Factor analysis required two stages, factor extraction and factor rotation. The primary objective of the first stage was to make an initial decision about the number of factors underlying the set of measured variables. The goal of the second stage was to statistically manipulate the results to make the factors more interpretable.

The first stage involved extracting factors from a correlation matrix to make initial decisions about the number of factors underlying a set of measures. Principal components analysis was used to make these decisions. The first extracted factor accounted for the largest amount of the variability among the measured variables, the second factor the next most variability and so on. The variability of a factor is called an eigenvalue. Two statistical criteria are used to determine the number of factors to extract: (1) the absolute magnitude of the eigenvalues of the factors (greater than one) and (2) the relative magnitudes of the eigenvalues (utilizing the scree test). In addition to the two statistical measures utilized to determine the number of factors, a priori conceptual beliefs, based on research, were utilized to estimate the number of factors being examined. In this study, a priori beliefs indicated that two factors would be measured by the survey (teacher professionalization and improved regularities of schooling). After conducting exploratory factor analysis, it was determined that only one factor was measured by the survey.

The first step in factor analysis was to develop a table of descriptive statistics for all the variables under investigation. Typically the mean, standard deviation and number of respondents (N) who participated in the survey are given. Utilizing composite means, descriptive data is provided in table 3.4

Table 3.4Descriptive Characteristics of Factors

Factors	Mean	Std. Deviation	Analysis N
Composite: Acknowledgement Of Teacher Knowledge	2.9814	0.56913	112
Composite: Opportunity for Professional Development	3.0379	0.60018	112
Composite: Opportunity for Innovation	2.9591	0.55096	112
Composite: Participation in Decision-making	2.6443	0.72234	112
Composite: Opportunity for Career Advancement	2.6131	0.74643	112
Composite: Reduced Teacher Isolationism	2.9070	0.66184	112
Composite: Mechanisms for Feedback and Reflection	2.9420	0.68077	112
Composite: Use of Data For Decisions	2.7522	0.66924	112
Composite: Questioning of Routinized Practice	2.8333	0.67088	112

The next step was to determine the correlation coefficient. The Pearson correlation is a parametric statistic used when variables are approximately normally distributed. It is an associational statistic used in the process of establishing reliability and validity. If the correlation is significant, the null hypothesis of no association can be rejected and it can be stated that a relationship between the variables exists.

A correlation matrix is a rectangular array of numbers that gives the correlation coefficients between a single variable and every other variable in the investigation. The

correlation coefficient between a variable and itself is always 1, hence the principal diagonal of the correlation matrix contains 1s. The correlation coefficients above and below the principal diagonal are the same. See Table 3.5.

Next in the sequence was the Kaiser-Mayer-Olkin (KMO) test for sampling adequacy. The KMO is accepted as an appropriate measure for sampling adequacy in the social sciences. Sampling adequacy should be greater than .70 for satisfactory factor analysis to proceed. The result of the KMO was .932.

Exploratory factor analysis utilized three methods of interpretation: eigenvalues, percent of variance and the scree plot. Eigenvalues were determined by squaring the correlation coefficients. The eigenvalue was then divided by the number of variables, which resulted in the proportionality accounted for by each variable. It was recommended that factors with an eigenvalue greater than one be retained for interpretation (Green, et al. 2000, p. 297). When the factor has an eigenvalue of at least 1.00, the factor is considered stable and replicable. Table 3.6 illustrates the factors and their eigenvalues. Only one factor had an eigenvalue greater than one.

The second assessed criteria was variance, also displayed in Table 3.6. Results indicated that the first factor accounted for nearly 73% of the total variance in the original variables, whereas the second factor accounted for only 6.5% of the variance. It was recommended that factors containing at least 70% of the variance be retained.

The scree plot is a method for determining, graphically, the number of factors to retain. A scree plot is a graph of the magnitude of each eigenvalue (vertical axis) plotted against their ordinal numbers (horizontal axis). See Figure 3.7. Mertler and Vannatta

Table 3.5**Correlations of Nine Factors on Assessing School-University Partnerships Questionnaire**

		Composite Acknowledgement Of Teacher Knowledge	Composite Opportunity for Professional Development	Composite Opportunity for Innovation	Composite Participation in Decision- making	Composite Opportunity for Career Advancement	Composite Reduced Teacher Isolationism	Composite Mechanisms for Feedback and Reflection	Composite Use of Data For Decisions	Composite Questioning of Routinized Practice
Composite Acknowledgement of Teacher Knowledge	Pearson Correlation Sig. (1-tailed) N	--- 118								
Composite Opportunity for Professional Development	Pearson Correlation Sig. (1-tailed) N	.770 .000 118	--- 118							
Composite Opportunity for Innovation	Pearson Correlation Sig. (1-tailed) N	.717 .000 118	.788 .000 118	--- 118						
Composite Participation in Decision-making	Pearson Correlation Sig. (1-tailed) N	.587 .000 118	.626 .000 118	.640 .000 118	--- 118					
Composite Opportunity for Career Advancement	Pearson Correlation Sig. (1-tailed) N	.566 .000 116	.709 .000 116	.607 .000 116	.643 .000 116	--- 116				
Composite Reduced Teacher Isolationism	Pearson Correlation Sig. (1-tailed) N	.689 .000 117	.683 .000 117	.739 .000 117	.586 .000 117	.576 .000 115	--- 117			
Composite Mechanisms for Feedback and Reflection	Pearson Correlation Sig. (1-tailed) N	.750 .000 118	.754 .000 118	.801 .000 118	.653 .000 118	.598 .000 116	.819 .000 117	--- 118		
Composite Use of Data For Decisions	Pearson Correlation Sig. (1-tailed) N	.674 .000 117	.667 .000 117	.727 .000 117	.666 .000 117	.621 .000 115	.674 .000 116	.804 .000 117	--- 117	
Composite Questioning of Routinized Practice	Pearson Correlation Sig. (1-tailed) N	.741 .000 116	.727 .000 116	.810 .000 116	.696 .000 116	.610 .000 114	.711 .000 115	.786 .000 116	.733 .000 115	--- 116

Table 3.6

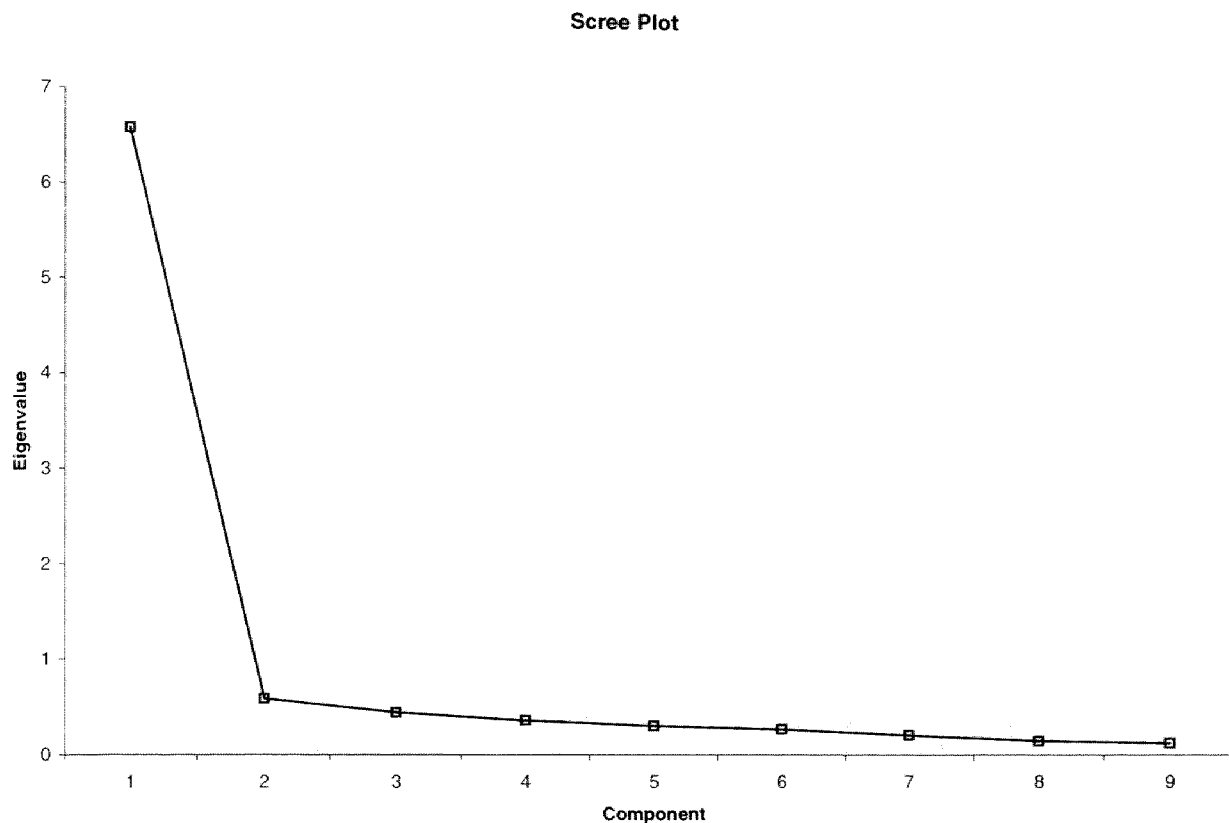
Eigenvalues, Percentages of Variance, and Cumulative Percentages for Factors of the 9-item Assessing School-University Partnerships Questionnaire

Factor	Eigenvalue	% of variance	Cumulative %
1	6.564	72.938	72.938
2	0.583	6.474	79.412
3	0.441	4.904	84.316
4	0.361	4.006	88.322
5	0.302	3.358	91.681
6	0.269	2.986	94.667
7	0.208	2.311	96.978
8	0.147	1.634	98.612
9	0.125	1.388	100.000

(2002) recommend retaining all factors with eigenvalues in the sharp descent of the line before the first one where leveling off occurs.

Based on the scree plot, only one factor is retained for interpretation. Because only one factor was retained, the factor solution was not rotated.

The results of factor analysis indicated that respondents did not identify differences between the two theories that were established a priori. Only one factor (construct) was retained, therefore, rotation could not be conducted. The results reported in Chapter 4 will be examined as a measure of only one theory. It is commonplace to rename the factor(s) following factor analysis, therefore, the results in Chapter 4 will be reported as “professional knowledge and practices.” This term replaces the constructs previously referred to as “teacher professionalization” and “improved regularities of schooling.”

Figure 3.1Scree Plot of Eigenvalues

Since factor analysis indicated only one theory was being examined, Cronbach's alpha was identified as the appropriate statistic for measuring interitem reliability of the survey. The alpha coefficient ranges in value from 0 to 1 and is used to describe the reliability of factors extracted from multi-point formatted questionnaires or scales. The higher the score, the more reliable the generated scale is. Nunnally (1978) indicated .70 to be an acceptable reliability coefficient. A reliability of .80 or higher is considered acceptable in most social science applications (UCLA Academic Technology Services, 2002). The reliability coefficient of the survey used in this study was .9506 indicating good internal consistency (all coefficient alphas are significant at $p < .01$).

Data Analysis

Multivariate analysis of variance (MANOVA) was used to compare groups, formed from the levels of the independent variable, in terms of the means of a composite dependent variable as well as each dependent variable separately. Although there are some disadvantages to using MANOVA (the main disadvantage being that it is more complicated than ANOVA) the inclusion of several dependent variables requires utilizing multivariate analysis of variance over a univariate analysis of variance. (The rationale for using multiple dependent variables was explained earlier in this chapter.)

MANOVA has several advantages over ANOVA in this study. First, by measuring several dependent variables the chances of discovering what actually changes as a result of the differing characteristics (levels of the independent variables) improved greatly. Second, MANOVA revealed differences not shown in separate ANOVAs. Third, the use of MANOVA reduced the chances of Type I errors.

There are several available test statistics for multivariate analysis of variance, but the most commonly used criterion is Wilk's Lambda (Λ). Wilk's Lambda can be used when equal variances are assumed (Mertler & Vannatta, 2000, p. 121).

In this study, the researcher was interested in investigating differences in institutional collaboration (DV₁) reallocation of resources (DV₂) research and inquiry (DV₃) and interchange of roles (DV₄) for individuals with differing years experience in education (IV₁), differing levels of education (IV₂) and differing levels of involvement in partnership activities (IV₃). Therefore the null hypotheses tested in this study were:

1. There are no significant mean differences for professional knowledge and practices by years of experience in education.
2. There are no significant mean differences for professional knowledge and practices by level of education.
3. There are no significant mean differences for professional knowledge and practices by level of involvement in partnership activities.

Assumptions and Limitations

A set of statistical assumptions must be met before conducting one way multivariate analysis of variance. These assumptions were:

1. The dependent variables were multivariately normally distributed for each population, with the different populations being defined by the levels of the factor.
2. The population variances and covariances among the dependent variables were the same across all levels of the factor (assumption of homogeneity).
3. The participants were randomly sampled, and the score on a variable for any one participant was independent from the scores on this variable for all other participants (independence).

The assumption of independence was primarily a design issue, not a statistical one. If group sample sizes are large and fairly equivalent, independence can be assumed (Mertler and Vannatta, 2002). The assumption of normality was tested by dividing skewness and kurtosis statistics by their standard errors (Kolmogorov-Smirnov test). Values less than 2 for kurtosis and between 2-3 for skewness are acceptable when sample sizes are large

(Field, 2000). Results of the procedure revealed a value less than 2 for kurtosis and a value between 2 and 3 for skewness, both within acceptable range. The assumption of homogeneity of the variance-covariance matrices (MANOVA) was tested with Box's test. Box's test was not significant, therefore, Wilk's Lambda criteria was utilized to interpret the multivariate tests. If multivariate significance was found, univariate ANOVAs were utilized to determine significant group differences. If univariate significance was revealed, post hoc tests were conducted to identify which groups were significantly different for each dependent variable.

Results of the statistical tests utilized in the study are described in Chapter 4.

Narrative data elicited from the two open-ended questions was summarized. Typical narrative data supporting conclusions of the study were also included in Chapter 4.

All raw data were checked twice for accuracy before and after input into the Statistical Package for the Social Sciences for Windows, the statistical analysis system utilized for the study.

Summary

This chapter identified the major categories of methodology used to complete the research. Demographics were given of the schools and the respondents utilized in the study. Sampling validity was discussed, as were reliability and validity of the chosen instruments and measures. The survey was described in addition to the procedure for data collection. Finally, analysis of data was presented, indicating the data were analyzed with multivariate analysis of variance.

Chapter 4

ANALYSIS OF THE DATA

The purpose of the study was to examine whether theorized outcomes of professional development schools had occurred and were evident at partnership sites.

Six Colorado high schools were involved in the study. Data were gathered through a survey, distributed to all certified teachers, guidance counselors, and media specialists in each high school. A between groups factorial design was utilized for the study.

Respondents were asked to complete a survey assessing the progress of their partnership in achieving professional development school outcomes that were theorized in the mid-1980s. Attributes of the theories were defined, with examples when applicable, to assist respondents in recognizing theorized outcomes. In addition, two open-ended questions were posed at the end of the survey to allow respondents to comment further on their respective partnerships.

This chapter presents the findings of this study based on the research questions which guided the data collection and analysis:

1. Are there significant mean differences in collaboration, allocation of resources, research and inquiry, and interchange of roles for individuals with differing years experience in education on teacher professionalization and practices?
 - 1a. If so, which levels of years experience in education differ?

2. Are there significant mean differences in collaboration, allocation of resources, research and inquiry and interchange of roles for individuals with differing levels of education on teacher professionalization and practices?
- 2a. If so, which levels of education differ?
3. Are there significant mean differences in collaboration, allocation of resources, research and inquiry and interchange of roles for individuals with differing levels of involvement in partnership activities on teacher professionalization and practices?
- 3a. If so, which levels of involvement differ?

One-way multivariate analysis of variance (MANOVA) was utilized to test the null hypotheses. Box's Test was utilized to test for multivariate normality. Box's Test revealed that equal variances could be assumed, $F(20,17519.529) = 1.523$, $p = .063$, therefore, Wilk's Lambda (Λ) was used as the test statistic.

Table 4.1 illustrates the results of Box's test.

Table 4.1

Box's Test of Equality of Covariance Matrices

Box's M	32.676
F	1.523
df1	20
df2	17519.529
Sig.	0.063

The Kolmogorov-Smirnov test of normality was utilized to test for skewness and kurtosis. The skewness statistic and the kurtosis statistic were divided by their respective

standard errors. The resulting values were less than 2 for Kurtosis, between 2-3 for skewness. Field (2000) indicated that these are acceptable results when large sample sizes are utilized.

All assumptions were addressed prior to statistical analysis.

Results of Quantitative Data Analysis

Null Hypothesis 1

There are no significant mean differences in collaboration, allocation of resources, research and inquiry and interchange of roles for individuals of differing years in education on teacher professionalization and practices.

Results of the MANOVA revealed no significant differences among the levels of years in education on the dependent variables, Wilks' $\Lambda = F(8,188) = .948, p > .05$. The null hypothesis was retained.

Null Hypothesis 2

There are no significant mean differences in collaboration, allocation of resources, research and inquiry and interchange of roles for individuals of differing levels of education on teacher professionalization and practices.

Results of the MANOVA revealed no significant differences among the levels of education on the dependent variables, Wilks' $\Lambda = F(4,94) = .183, p > .05$. The null hypothesis was retained.

Null Hypothesis 3

There are no significant mean differences in collaboration, allocation of resources, research and inquiry and interchange of roles for individuals of differing levels of involvement in partnership activities on teacher professionalization and practices.

Results of the MANOVA revealed significant differences among the levels of involvement on the dependent variables, Wilk's $\Lambda = F(8,188) = 2.002, p < .05$ (Table 4.2).

Table 4.2

Multivariate Test Result Utilizing Wilk's Lambda Statistic

Value	F	Hypothesis df	Error df	Sig.
.849	2.002	8.000	188.000	.048*

* $p < .05$

The null hypothesis was rejected. One-way analysis of variance (ANOVA) was conducted as a follow up to MANOVA. Level of involvement differences were significant for three of the dependent variables: collaboration, $F(2,97) = 3.910, p = .023, \eta^2 = .075$, effect size was high. Level of involvement differences were not significant for the

dependent variable allocation of resources, $F(2,97) = 2.360$, $p = .100$. Level of involvement differences were significant for the dependent variable research and inquiry, $F(2,97) = 3.175$, $p = .046$, $\eta^2 = .061$, effect size was average. Level of involvement differences were significant for the dependent variable interchange of roles, $F(2,97) = 3.651$, $p = .030$, $\eta^2 = .070$. Effect size was high. Table 4.3 describes means and standard deviations of the dependent variables for the four groups.

Table 4.3

Descriptive Statistics of Level of Involvement Variables

Composite	My level of involvement	Mean	Std. Deviation	N
PDS #1 Collaboration	Minimal	2.8662	0.54827	22
	Average	2.8492	0.56364	48
	High	3.1917	0.53903	30
	Total	2.9557	0.56908	100
PDS #2 Alloc. of Res.	Minimal	2.8763	0.51144	22
	Average	2.6100	0.66759	48
	High	2.8996	0.69094	30
	Total	2.7554	0.65324	100
PDS #3 Res. & Inquiry	Minimal	2.8561	0.58056	22
	Average	2.7459	0.56687	48
	High	3.0831	0.58725	30
	Total	2.8713	0.58851	100
PDS #4 Inter. of Roles	Minimal	2.8542	0.59755	22
	Average	2.8274	0.62695	48
	High	3.2019	0.63151	30
	Total	2.9456	0.63852	100

Table 4.4 describes the results of the one-way ANOVA on the independent variable "Level of Involvement".

Table 4.4

One-way Analysis of Variance Summary for Independent Variable: Level of Involvement on Four Dependent Variables: Collaboration, Allocation of Resources, Research and Inquiry and Interchange of Roles

Component	df	SS	MS	F	p	d
Collaboration	2	2.392	1.196	3.910	0.023*	0.62
Alloc. of Res.	2	1.961	0.980	2.360	0.100	
Res. & Inquiry.	2	2.107	1.053	3.175	0.046*	0.58
Inter. of Roles	2	2.826	1.413	3.651	0.030*	0.59

*p < .05

Because significance was determined, and the factor had more than one level, additional post-hoc tests were conducted.

Tukey post hoc analyses to the univariate ANOVA for the level of involvement scores consisted of conducting pairwise comparisons to find which level of involvement affected collaboration, research and inquiry, and interchange of roles most strongly. Respondents who identified their level of involvement in partnership activities as high differed significantly from the average group on the dependent variable collaboration. The minimal and average groups were not significantly different from each other. Those who identified their level of involvement as high also differed significantly from the average group on the dependent variable research and inquiry. The minimal and average groups did not differ significantly from each other. Additionally the high level of involvement group differed significantly from the average group on the dependent variable interchange of roles. The high group did not differ significantly from the minimal group on any of the three dependent variables. The minimal and average groups

were not significantly different from each other. Table 4.5 describes results of the post hoc analysis.

Table 4.5

Post Hoc Tests: Level of Involvement in Partnership Activities

Dependent Variable	(I) Level of Involvement	(J) Level of Involvement	Mean Difference		Signif.	95% Confidence Interval	
			(I-J)	Std. Error		Lower Bound	Upper Bound
Composite PDS#1 Institutional Collaboration	Minimal	Average	.0169	.14239	.992	-.3220	.3558
		High	-.3256	.15524	.096	-.6951	.0439
	Average	Minimal	-.0169	.14239	.992	-.3558	.3220
		High	-.3425	.12872	.025	-.6489	-.0361
	High	Minimal	.3256	.15524	.096	-.0439	.6951
		Average	.3425	.12872	.025	.0361	.6489
Composite PDS#2 Allocation of Resources	Minimal	Average	.2663	.16592	.248	-.1286	.6612
		High	-.0233	.18089	.991	-.4539	.4072
	Average	Minimal	-.2663	.16592	.248	-.6612	.1286
		High	-.2896	.14999	.135	-.6466	.0674
	High	Minimal	.0233	.18089	.991	-.4072	.4539
		Average	.2896	.14999	.135	-.0674	.6466
Composite PDS#3 Research and Inquiry	Minimal	Average	.1102	.14832	.739	-.2428	.4632
		High	-.2271	.16168	.343	-.6119	.1578
	Average	Minimal	-.1102	.14830	.739	-.4632	.2428
		High	-.3373	.13406	.036	-.6564	-.0182
	High	Minimal	.2271	.16168	.343	-.1578	.6119
		Average	.3373	.13406	.036	.0182	.6564
Composite PDS#4 Interchange of Roles	Minimal	Average	.0268	.16016	.985	-.3544	.4080
		High	-.3477	.17461	.120	-.7634	.0679
	Average	Minimal	-.0268	.16016	.985	-.4080	.3544
		High	-.3745	.14478	.030	-.7191	-.0299
	High	Minimal	.3477	.17461	.120	-.0679	.7634
		Average	.3745	.14478	.030	.0299	.7191

P < .05

Results of Narrative Data Analysis

Narrative data was collected from two open-ended questions on the survey. Similar items were grouped by frequency, then analyzed for themes and content. The responses to question 1 indicated that teachers recognized the value and presence of collaboration between school and university educators. Research and inquiry and interchange of roles was evident at some of the sites, however, these two items did not appear to be present to a large or consistent degree. Responses indicated that most teachers were unaware that resources had been allocated to support partnership activities. A common theme of the responses was the notion that teachers were in control of the degree to which they experienced or recognized theorized outcomes. That is, if a teacher chose to participate to a high level in partnership activities, then a teacher might recognize collaboration, allocation of resources, research and inquiry and interchange of roles as being present to some degree at their sites. This supported the findings of the statistical analysis of the data. Collaboration was cited most frequently as having some presence in each partnership site. Collaboration (teachers talking with one another regarding the profession and regularities of schooling) was identified as the most accessible outcome, particularly since university teacher preparation classes as well as preservice teacher interns were present at the school sites.

The results of narrative data on question 2 suggested that teachers at the schools involved in the study would like to experience increased teacher professionalization. Several mentioned the capacity of partnerships to have an impact in this area, if partnerships were fully embraced and supported. Illustrative of the responses in regard to

teacher professionalization was the following: “participation, learning, research, and mentoring are strong keys to becoming a quality teacher”. Several commented that teacher professionalization had suffered in the accountability era. As one respondent commented: “we need to focus on teaching as a profession in dire need of community support and respect.” (See Results of Narrative Data in Appendix C.)

Summary

In summary, the analysis examined three independent variables: years in education, level of education and level of involvement and the possible effect on the four dependent variables of collaboration, allocation of resources, research and inquiry and interchange of roles. MANOVA results on the first two independent variables indicated no significance. MANOVA results on the third independent variable indicated significance. Follow-up ANOVAs indicated statistical significance on three of the four dependent variables: collaboration, research and inquiry and interchange of roles. Follow-up post hoc tests revealed that the group identifying their level of involvement as high differed significantly from the average group on all three dependent variables. The average and minimal groups were not significantly different from each other.

Narrative data were collected from two open-ended questions on the survey. Teacher responses on the questions supported the findings of the quantitative data.

Chapter 5

SUMMARY, CONCLUSIONS, DISCUSSION, AND RECOMMENDATIONS

This study began with a curiosity about the theories regarding professional development schools, and the degree to which theorized outcomes had occurred in schools that participated in professional development partnerships. The purpose of the study was to determine whether early theorized outcomes had been realized. The review of literature revealed that limited research had been done in the area of professional development school theory.

Six Colorado high schools participated in the study. Certified teachers, media specialists and guidance counselors were asked to complete a questionnaire in which they provided demographic information about themselves, and responded to questions regarding PDS theory specifically related to changes at the school sites.

Research in the area of professional development school theory and its impact on schools is important in this time of widespread reform of public education. With cries for greater accountability of schools, those with an interest in improving schools must examine the transformational effects of various reform efforts. Professional development schools (partnerships between schools and universities for the purpose of preparing teachers and improving outcomes for students in PreK-12 settings) have been supported by professional teacher associations, private foundations and state legislatures as a tool for reforming public education.

PDS partnerships were proposed in the mid-nineteen eighties by several influential forums and professional educators. Theorized outcomes included professionalization of teaching, reform of the PreK-12 system, reform of the university system, and improvement of teacher preparation. PDSs were defined as true collaboratives between dissimilar institutions resulting in mutual benefit. Goodlad described the benefit as “simultaneous renewal”. Others described the collaboratives as symbiotic in nature, each organization integrated and dependent on one another to create new institutions. PDSs began appearing the early nineties, and currently, there are hundreds of partnerships in existence in over thirty-eight states.

The review of literature revealed that research on professional development schools initially focused on teacher preparation outcomes. The results of these studies in general supported the result that preservice teachers who participated in PDSs were generally better prepared for teaching and stayed in the field longer than teachers prepared in traditional preparatory programs. In addition, early research documented the struggles and pitfalls of PDS implementation. Less common was research examining school-university partnerships from theoretical perspectives which first led to PDS development, acceptance and implementation.

In constructing the study, it was necessary to determine a way to describe unobservable constructs, that is, early PDS theories. In other words, the constructs of teacher professionalization and improved regularities of schooling had to be made observable by participants at partner school sites. A review of literature revealed that key practices of professional development schools which would be recognized in the PreK-12 schools included increased collaboration; allocation of the resources (e.g. time and

money), ongoing research and inquiry focused on school problems, and an interchange of roles between teachers, preservice teaching candidates and university educators. Factor analysis indicated that teachers did not see differences between the two theories of teacher professionalization and improved regularities of schooling. Therefore, one factor was extracted and renamed “teacher professionalization and practices.”

Because the roles of the professionals involved in PDSs differ from site to site, with no specific requirements for participation common to all partnerships, it was necessary to create a survey including several dependent variables, enabling the constructs to be examined through a variety of “lenses”. Survey respondents were divided into categories by years experience in education, level of education, and level of involvement in partnership activities.

Conclusions

1. Outcomes predicted by the early proponents of professional development schools were not consistently present throughout the schools involved in the study.
2. Teachers who identified themselves as having a high level of involvement in partnership activities recognized the potential of partnerships in impacting them professionally and in changing the existing culture of the school.
3. The system constraints of time, resources, and school culture impacted the possibility for whole-school change as the result of partnership involvement.
4. Narrative data suggested that none of the schools involved in the partnerships identified transformational benefits or effects at their sites.

In examining the independent variable of years experience in education, there was no significant difference on the means of the dependent variables of collaboration, resource allocation, research and inquiry and interchange of roles. Because there are no “prerequisite” requirements for participation in partnership activities for teachers by years experience in education, this result was anticipated.

In examining the independent variable of level of education, there was no significant difference on the means of the dependent variables of collaboration, resource allocation, research and inquiry and interchange of roles. Teachers at partnership schools are encouraged to participate in a variety of activities, including mentoring of preservice and beginning teachers, conducting action-research and participating in professional development opportunities. In other words, there is something on the “menu” for all teachers, regardless of level of education of the teacher. All teachers are encouraged to engage in the development of a learning community. Therefore, this result was not inconsistent with expectations.

In examining the independent variable of level of involvement in partnership activities, there were significant differences on the means of the dependent variables of collaboration, research and inquiry and interchange of roles. Post hoc analyses of the results indicated that participants who identified themselves as having a high level of involvement in partnership activities differed significantly from the average group on three of the four dependent variables. The high group did not significantly differ from the minimal group on the dependent variables. The average and minimal groups did not differ significantly from each other. The researcher considered the third independent variable (level of involvement) as a critical element in detecting theorized outcomes. For

example, teachers with a high level of involvement may be active in the partnership across a variety of domains: mentoring preservice teachers, planning or conducting professional development, collaborating with university educators and specialists, serving on school governance committees and so on. In addition, teachers with a high level of involvement were probably more aware of PDS theory and may be able to examine the presence of theorized outcomes more precisely at their sites. Teachers who described their level of involvement as “average” may have been aware of the variety of partnership activities available to them or present in some way at their schools, but chose not to participate in the activities to a high degree. Teachers who described their level of involvement as “minimal” may not have been aware of the opportunities for involvement that existed within their partnership, or the underlying theory of professional development school partnerships, therefore were unable to recognize the differences between PDS opportunities and the routinized practices of their schools. Narrative data supported the statistical findings of the study. In response to question 1 (Please expand on any of the four components to further explain the ways in which your partnership has achieved the expected outcomes) respondents most frequently cited collaboration as the most observable characteristic of their partnerships. The number of responses identifying interchange of roles and research and inquiry was far higher than the number of responses discussing allocation of resources, but fewer than the number of responses discussing collaboration. In regard to question two (toward which theorized outcomes would you like to see greater progress) twenty three respondents identified teacher professionalization. Other theories were cited fewer than ten times. Allocation of resources was rarely cited, possibly because teachers in general have little access to

school schedules and management and little or no influence in the allocation of university resources.

Based on the findings the following conclusions were made:

Implications

1. Formal agreements to enter into partnerships must include commitments to support the partnership with resources. The allocation of resources in supporting and sustaining partnerships was not evident in the partnerships involved in the study. It is imperative that PDS implementers recognize the cost, in terms of time and energy, required of participants in PDS activities.
2. Practitioners in partner schools need to develop deeper understanding of the complexity of large high schools and the barriers to change inherent in these systems.
3. Proponents of partnerships must describe desired outcomes with great clarity. In addition, essential elements that are required to develop and sustain successful partnerships must be identified.
4. Expanded possibilities for involvement with university educators beyond the colleges of education need to be encouraged.

Progress toward realization of the early theories promoting PDS partnerships can be examined from a variety of perspectives. Research has indicated the school systems, as well as university systems are entrenched, bureaucratic institutions, highly resistant to change. Data presented here indicated that professional development school partnerships

have not fulfilled their early predictions to create new institutions, focused on new roles for school and university educators. At partnership sites, more teachers appear to be regularly involved in the examination of teaching and learning, but the realities of day-to-day existence in the schools, and the tenacity of cultural norms of high schools suggested that greater attention must be paid to the implementation, goals and costs associated with sustaining partnership activities. Although theorized outcomes were recognized by some teachers at the partnership sites, data did not indicate major changes in schools' ongoing practices, and there was no evidence of systemic reform as a result of the partnerships.

Harris and Harris (1995) describe the journey to school renewal as a journey to the unknown:

The voyager knows some of the conditions and benefits of the destination, but not all of them. Most travelers have considered the price, but only a part of it. Most who set forth are aware of some of the dangers and pitfalls, but only those that can be inferred from journeys to other destinations.

Reading the maps and logs of similar voyages undertaken by others can substantially increase...knowledge about destination, price and pitfalls (Harris and Harris, in Osguthorpe, Harris, Harris and Black, 1995, p. 227).

Theorists who proposed school-university partnerships as a way to transform education and improve outcomes for students were proposing a journey and envisioning a destination. Based on earlier research and their own experiences, they described the conditions and benefits of the journey, but only part of them. A nation

intent on changing the outcomes of schools encouraged the travelers. Many followed the early maps and must now be asked to share their experiences. Did the journey result in the preferred future envisioned by theorists? If not, can the knowledge of price and pitfalls inform those who believe the vision is real and accessible?

Expectations regarding reform of the PreK-12 systems by establishing school-university partnerships must first address the gaps between theoretical projections and actual implementation and results of PDSs. The absence of change theorized as the result of partnership involvement suggests two possibilities: that important conditions in establishing and sustaining partnerships identified in the early theories may not have been met; or that early theories have promised too much in terms of outcomes of professional development school partnerships. Further study examining existing conditions of partnerships, identifying necessary conditions for successful partnership implementation needs to be encouraged. Any expectations of change in the professionalization of teaching, or of change in the routinized practices of large and complex systems must first account for the gaps between the theoretical projections and the existing conditions of PDSs.

As a final note, additional research examining the theory base of professional development schools is critical to chart the next phases of partnership evolution. Are the goals (beyond improved teacher preparation) being met? If not, what conditions are lacking? Which outcomes are most important? Are the theories incorrect, or are implementation difficulties too significant? Further research is needed to create the maps from which future travelers will arrive at the destination of school reform.

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Appendix A. NNER Postulates

Conditions thought necessary to exemplary programs for the education of educators:

1. Programs for the education of the nation's educators must be viewed by institutions offering them as a major responsibility to society and be adequately supported and promoted and vigorously advanced by the institution's top leadership.
2. Programs for the education of educators must enjoy parity with other professional education programs, full legitimacy and institutional commitment, and rewards for faculty geared to the nature of the field.
3. Programs for the education of educators must be autonomous and secure in their borders, with clear organizational identity, constancy of budget and personnel, and decision-making authority similar to that enjoyed by the major professional schools.
4. There must exist a clearly identifiable group of academic and clinical faculty members for whom teacher education is the top priority; the group must be responsible and accountable for selecting diverse groups of students and monitoring their progress, planning and maintaining the full scope and sequence of the curriculum, continuously evaluating and improving programs, and facilitating the entry of graduates into teaching careers.
5. The responsible group of academic and clinical faculty members described above must have a comprehensive understanding of the aims of education and the role of schools in our society and be fully committed to selecting and preparing teachers to assume the full range of educational responsibilities required.
6. The responsible group of academic and clinical faculty members must seek out and select for a predetermined number of student places in the program those candidates who reveal an initial commitment to the moral, ethical and enculturating responsibilities to be assumed, and make clear to them that preparing for these responsibilities is central to this program.
7. Programs for the education of educators, whether elementary or secondary, must carry the responsibility to ensure that all candidates progressing through them possess or acquire the literacy and critical-thinking abilities associated with the concept of an educated person.
8. Programs for the education of educators must provide extensive opportunities for future teachers to move beyond being students of organized knowledge to become teachers who inquire into both knowledge and its teaching.



9. Programs for the education of educators must be characterized by a socialization process through which candidates transcend their self-oriented student preoccupations to become more other-oriented in identifying with a culture of teaching.
10. Programs for the education of educators must be characterized in all respects by the conditions for learning that future teachers are to establish in their own schools and classrooms.
11. Programs for the education of educators must be conducted in such a way that future teachers inquire into the nature of teaching and schooling and assume that they will do so as a natural aspect of their careers.
12. Programs for the education of educators must involve future teachers in the issues and dilemmas that emerge out of the never-ending tension between the rights and interests of individual parents and interest groups and the role of schools in transcending parochialism and advancing community in a democratic society.
13. Programs for the education of educators must be infused with understanding of and commitment to the moral obligation of teachers to ensure equitable access to and engagement in the best possible K-12 education for all children and youths.
14. Programs for the education of educators must involve future teachers not only in understanding schools as they are but in alternatives, the assumptions underlying alternatives, and how to effect needed changes in school organization, pupil grouping, curriculum and more.
15. Programs for the education of educators must assure for each candidate the availability of a wide array of laboratory settings for simulation, observation, hands-on experiences, and exemplary schools for internships and residencies; they must admit no more students in their programs than can be assured of quality experiences.
16. Programs for the education of educators must engage future teachers in the problems and dilemmas arising out of the inevitable conflicts and incongruities between what is perceived to work in practice and the research and theory supporting other options.
17. Programs for the education of educators must establish linkages with graduates for purposes of both evaluating and revising these programs and easing the critical early years of transition into teaching.
18. Programs for the education of educators require a regulatory context with respect to licensing, certifying, and accrediting that ensures at all times the presence of the necessary conditions embraced by the seventeen preceding postulates.

19. Programs for the education of educators must compete in an arena that rewards efforts to continuously improve on the conditions embedded in all of the postulates and tolerates no shortcuts intended to ensure a supply of teachers.

**ASSESSING THE PROGRESS OF SCHOOL-
UNIVERSITY PARTNERSHIPS IN RELATION TO EARLY
PARTNERSHIP THEORIES**

**A SURVEY OF HIGH SCHOOL TEACHERS PARTICIPATING IN SCHOOL
UNIVERSITY PARTNERSHIPS KNOWN AS PROFESSIONAL DEVELOPMENT
SCHOOLS (PDS)**

PURPOSE OF THE SURVEY:

You are being asked to assess the degree to which your professional development school (PDS) has achieved outcomes which were predicted when school-university partnerships were introduced in the mid-1980s. There are two purposes for this assessment:

- A. To provide participants an opportunity to reflect on and give feedback to interested participants in the partnership.
- B. To assess the degree to which two of the early theories of PDS work (those relating specifically to school sites) have been realized.

Your participation is voluntary and anonymous. Your responses will be aggregated by school for reporting back to you, but the study will not compare schools and your individual responses will be kept confidential and reported in aggregate in such a way that no respondent will be identifiable.

DEMOGRAPHICS:

1. Please write the name of the partner school that you are involved with:
_____.
2. I have been in education
 - a. 1-3 Years
 - b. 4-10 Years
 - c. 10 Years or More
4. My level of education is
 - a. Bachelor's Degree
 - b. Master's Degree
 - c. Doctorate Degree
 - d. Other: _____.
5. My level of involvement in partnership activities is
 - a. I would consider my level of involvement in partnership activities to be minimal.
 - b. I would consider my level of involvement in partnership activities to be average.
 - c. I would consider my level of involvement in partnership activities to be high.

DIRECTIONS:

In this survey, you will be asked to examine four components of PDS partnerships (collaboration; allocation of resources; research and inquiry; interchange of roles) and the link between each component and the attributes of two early PDS theories. The two theories to be examined include increased teacher professionalization and improved regularities of schooling. You will be asked to assess the progress your school in achieving outcomes which were theorized in the mid-1980s in regard to school-university partnerships.

Using the following scale, please respond to each survey item by rating the degree to which you agree or disagree with the survey statements. Please circle your response for each item.

Strongly Agree (4)

Agree (3)

Disagree (2)

Strongly Disagree (1)

Not Applicable (NA)

Attributes of each theory are defined, with examples when applicable, on the next page. Please review them briefly before proceeding with the survey. In addition, two open-ended questions at the end of the survey will provide further opportunity to comment on the survey items.

Teacher Professionalization Attributes*A. Acknowledgment of Teacher Knowledge*

(Teachers act as mentors to preservice teacher candidates; Teachers present strategies to preservice teacher classes; Teachers collaborate with university faculty on research topics; Recognition of teachers participating in partnership activities is provided by the local district; Status of teachers within the community has increased; School and university personnel are seen as equals.)

B. Opportunity for Professional Development

(Teachers learn new skills; Teachers participate in classes/seminars; Teachers collaborate on training topics; Teachers make presentations at conferences; Teachers establish professional goals.)

C. Opportunity for Innovation

(Teachers define research topics; Teachers change instructional practices based on feedback; Teachers connect instructional theory to practice; Teachers are encouraged to innovate.)

D. Increased Teacher Decision-Making

(Teachers participate in decisions regarding curriculum; Teachers participate in relevant committee work; Teachers participate in school governance.)

E. Opportunity for Career Advancement

(Salary is differentiated based on teacher roles; Teachers are given leadership roles; Teachers have access to university coursework; Teachers participate in teaching/facilitating university classes; Financial incentives are in place to support participation in PDS.)

Improved Regularities of Schooling Attributes:*F. Reduced Teacher Isolationism*

(Teachers regularly talk about teaching and learning with other adults; Teachers request opportunities to share information with other professionals; Teachers seek out opportunities to share with other professionals outside the classroom.)

G. Regular Mechanisms for Feedback and Reflection

(Teachers regularly have other adults visit the classroom; Preservice teachers provide feedback to teachers following classroom observations; Teachers participate in inquiry and research.)

H. Inquiry Process/Data Used to Inform Decisions

(Teachers use classroom data to make decisions about their teaching; Teachers use school-wide data to make decisions regarding school practices; Teachers engage with other professionals in data collection and study of practice; Teachers are encouraged to participate in graduate level research and study.)

I. Questioning of Routinized Practice

(Teachers are encouraged to raise compelling questions about their school; teachers participate in reform efforts; teachers participate in decision-making tasks.)

PDS COMPONENT #1: INSTITUTIONAL COLLABORATION

Institutional collaboration refers to the joining together of professionals from various institutions for the purpose of shared learning and mutual benefit. In a partnership, professionals from the School of Education, the College of Arts and Sciences, and the school site create a community of learners engaged in the development of exemplary programs and schools.

Collaboration between school personnel and university faculty *within this partnership* has resulted in:

A. Increased acknowledgment of teacher knowledge.

4 (SA)	3 (A)	2 (D)	1 (SD)	NA
--------	-------	-------	--------	----

B. Increased opportunity for professional development.

4 (SA)	3 (A)	2 (D)	1 (SD)	NA
--------	-------	-------	--------	----

C. Increased opportunity for innovation.

4 (SA)	3 (A)	2 (D)	1 (SD)	NA
--------	-------	-------	--------	----

D. Increased teacher participation in decision-making.

4 (SA)	3 (A)	2 (D)	1 (SD)	NA
--------	-------	-------	--------	----

E. Increased opportunity for career advancement.

4 (SA)	3 (A)	2 (D)	1 (SD)	NA
--------	-------	-------	--------	----

F. Decreased teacher isolationism.

4 (SA)	3 (A)	2 (D)	1 (SD)	NA
--------	-------	-------	--------	----

G. Increased mechanisms for feedback and reflection.

4 (SA)	3 (A)	2 (D)	1 (SD)	NA
--------	-------	-------	--------	----

H. Increased use of data to inform decisions and improve practice.

4 (SA)	3 (A)	2 (D)	1 (SD)	NA
--------	-------	-------	--------	----

I. Increased questioning of routinized practice.

4 (SA)	3 (A)	2 (D)	1 (SD)	NA
--------	-------	-------	--------	----

PDS COMPONENT #2: ALLOCATION OF RESOURCES

Resources of time, facilities, and finances are allocated to support partnership activities and to recognize varying roles of professionals within the partnership. Resources are allocated to address priorities identified by all stakeholders with respect to the partner school concept.

Resource Allocation *within this partnership* has resulted in

A. *Increased acknowledgment of teacher knowledge.*

4 (SA) 3 (A) 2 (D) 1 (SD) NA

B. *Increased opportunity for professional development.*

4 (SA) 3 (A) 2 (D) 1 (SD) NA

C. *Increased opportunity for innovation.*

4 (SA) 3 (A) 2 (D) 1 (SD) NA

D. *Increased teacher participation in decision-making.*

4 (SA) 3 (A) 2 (D) 1 (SD) NA

E. *Increased opportunity for career advancement.*

4 (SA) 3 (A) 2 (D) 1 (SD) NA

F. *Decreased teacher isolationism.*

4 (SA) 3 (A) 2 (D) 1 (SD) NA

G. *Increased mechanisms for feedback and reflection.*

4 (SA) 3 (A) 2 (D) 1 (SD) NA

H. *Increased use of data to inform decisions and improve practice.*

4 (SA) 3 (A) 2 (D) 1 (SD) NA

I. *Increased questioning of routinized practice.*

4 (SA) 3 (A) 2 (D) 1 (SD) NA

PDS COMPONENT #3: RESEARCH AND INQUIRY

Teachers, along with other professionals, participate in research and inquiry related to school-based concerns. By taking part in research and inquiry, teachers renew their knowledge and skills related to teaching. University faculty as well as teacher candidates gain new perspectives as they work with school staffs to address school issues. In addition, all share new learning, contributing to the profession's "fund" of knowledge.

Research and inquiry conducted *within this partnership* has resulted in

A. *Increased acknowledgment of teacher knowledge.*

4 (SA) 3 (A) 2 (D) 1 (SD) NA

B. *Increased opportunity for professional development.*

4 (SA) 3 (A) 2 (D) 1 (SD) NA

C. *Increased opportunity for innovation.*

4 (SA) 3 (A) 2 (D) 1 (SD) NA

D. *Increased teacher participation in decision-making.*

4 (SA) 3 (A) 2 (D) 1 (SD) NA

E. *Increased opportunity for career advancement.*

4 (SA) 3 (A) 2 (D) 1 (SD) NA

F. *Decreased teacher isolationism.*

4 (SA) 3 (A) 2 (D) 1 (SD) NA

G. *Increased mechanisms for feedback and reflection.*

4 (SA) 3 (A) 2 (D) 1 (SD) NA

H. *Increased use of data to inform decisions and improve practice.*

4 (SA) 3 (A) 2 (D) 1 (SD) NA

I. *Increased questioning of routinized practice*

4 (SA) 3 (A) 2 (D) 1 (SD) NA

PDS COMPONENT #4: INTERCHANGE OF ROLES

Within a partnership, university faculty members, classroom teachers and preservice candidates work together to provide exemplary education and training to future teachers. University and school personnel are seen as equal partners. And roles may frequently be interchanged. Teachers may, for example, share in the university classroom instruction of preservice candidates. University personnel may facilitate a study team of teachers and teacher candidates at the school site. All participants benefit from simultaneous renewal. Relationships are broadened as roles are expanded and shifted.

The **interchange of roles** (school, university, teacher candidates) within this partnership has resulted in

A. *Increased acknowledgment of teacher knowledge.*

4 (SA) 3 (A) 2 (D) 1 (SD) NA

B. *Increased opportunity for professional development.*

4 (SA) 3 (A) 2 (D) 1 (SD) NA

C. *Increased opportunity for innovation.*

4 (SA) 3 (A) 2 (D) 1 (SD) NA

D. *Increased teacher participation in decision-making.*

4 (SA) 3 (A) 2 (D) 1 (SD) NA

E. *Increased opportunity for career advancement.*

4 (SA) 3 (A) 2 (D) 1 (SD) NA

F. *Decreased teacher isolationism.*

4 (SA) 3 (A) 2 (D) 1 (SD) NA

G. *Increased mechanisms for feedback and reflection.*

4 (SA) 3 (A) 2 (D) 1 (SD) NA

H. *Increased use of data to inform decisions and improve practice.*

4 (SA) 3 (A) 2 (D) 1 (SD) NA

I. *Increased questioning of routinized practice.*

4 (SA) 3 (A) 2 (D) 1 (SD) NA

Please answer the following open-ended questions in regard to your school's partners

1. Please expand on any of the four components (Collaboration, Allocation of Resources, Research and Inquiry, Interchange of Roles) to further explain the ways in which partnership has achieved the theorized outcomes.
2. Please describe the characteristics of the PDS partnership at this site which interact as barriers to theorized outcomes occurring at your school.

Appendix C. Narrative Data

Assessing the Progress of School-University Partnerships in Relation to Early Partnership Theories

Question 1: Please expand on any of the four components (collaboration, allocation of resources, research and inquiry, interchange of roles) to further explain the ways in which your partnership has achieved the expected outcomes.

Partnership #1

- There is much greater understanding of what is required by new teachers by the PDS student and co-op teachers are happier because the students are here longer and interact more with teachers and students. University personnel can see first hand what is needed to prepare new teachers. (1)
- Teacher and PDS have increased student, teacher and (university) collaboration (2)
- I have been very active with the PDS at our school and the main area in which I have seen PDS to be effective on the level of my classroom – collaboration. Otherwise I don't think the PDS has done a good job on the other aspects. (3)
- Have not participated in program (6)
- I don't know how to evaluate the PDS program by one of the components alone. I have experience with PDS with all 4 components together. (8)
- I like the questions students ask. It helps me clarify and question my own teaching practice (10)
- Collaboration between educators and candidates has stimulated creativity, sparked enthusiasm and decreased isolation. It has benefited both candidates and veterans. (11)
- Collaboration with preservice teachers has been fun and has resulted in development of some new classroom activities and resources. (13)
- Because of the collaboration and allocation of resources, renewal of the teacher certification has been possible. (16)
- Anytime one encounters new ideas, good or bad, one is enriched. Examining such ideas, implementing or imitating the good ones address to our profession. PDS students provide some great ideas. The program in general helps maintain a positive link with (university). (18)
- "Select" few benefit. PDS uses teacher time with very little given back. It's like an added responsibility and drain of teacher time. Why pay? What rewards or incentives? What research? What role exchange? Study teams? (19)
- I see collaboration and interchange of roles as similar. It's so easy to get in a rut even with "great practices." I love the energy and new knowledge of preservice candidates. They help me verify what I'm doing well and also give me renewed enthusiasm for my job. I also learn updated terms and practices, especially in the area of technology. They help me actually think about what I do instead of just going through the motions. It's a fantastic program! (22)
- I have not participated in the PDS program as a teacher. I have participated as a PDS student. The program has the ability to provide the line teacher with an opportunity to observe the newest approaches to teaching and measure them against what they are doing in their classrooms. The teachers I worked with could have made "more use" of my presence in their classrooms. This statement must be considered in regards to how much damage I might have caused the class. (23)
- I am (no doubt) a better teacher from participating in the program. The elements of good instruction are always "at the surface." (26)

Due to lack of candidates in our curriculum area, the PDS program has not worked as well as it could have.

Partnership #2

- The most positive aspects are: 1) student learning is not interrupted by major transitions between PDS teacher and mentor teacher. This is good for kids. 2) The PDS intern sees a full year witnessing school issues and student development. 3) The experience is real – they see it all! 4) The PDS intern and mentor teacher develop a strong relationship. (1)
 - The opportunity to analyze and influence a neophyte teacher is one of the greatest aspects of this program. (2)
 - Problems: 1) too many PDS in a department; 2) your pay to the mentors is way too low. They do the work. (University) takes the credit. This low pay shows your attitude and respect towards public education. 3) If they are to teacher, leave them in the classroom, not going to classes at (university). 4) They are told public school teachers are not doing their job. 5) If you are concerned about quality education expand the program for all areas, just not social studies, science, math and English. (3)
 - Obviously, the interchange of roles allows the mentor teacher to reflect on techniques, student requirements, and student evaluation to improve in these areas. Eventually, the mentor and the PDS student become a collaboration to improve student performance. The PDS program is so concentrated (within one year) that research and resources become secondary to development of the new prospective teacher. (5)
 - My role is small concerning PDS, but I do not view there being any significant interaction between our school and the college other than we have PDS interns here performing student-teacher duties. (7)
 - I have not participated directly. I do believe that the PDS teachers we have had find themselves more a part of the faculty, and overall have a better preparation than those in the traditional student/teacher system. (8)
- I feel the PDS program not only produces well prepared, flexible, knowledgeable teachers, but the program increases established teachers' esteem in their profession as well as encourage them to analyze former teaching practices. As a result of participation in PDS I am a better teacher. The collaboration function to remove much isolation also renders support to both the established teacher and the student teacher. The entire process worked well for (school) students – providing more one on one possibilities within the classroom and thus a better education. (10)

Partnership #3

- What allocation of resource? Negligible or non-existent. (3)
- Teacher input needs to be considered in all four components and when designing teacher education programs. There are many components of the teacher education program that I completed that have proved useless in application. There are also many other things I have encountered in the field that I could have greatly benefited from learning about in class. (4)
- Collaboration and interchange of roles are the 2 strengths of the partnership. The partnership has enabled classroom teachers and university professions, especially in the college of arts and sciences to work together in a sincere effort to improve/strengthen the preparation of teacher candidates. Teacher candidates can truly apply university content/theory and put it into practice. More realistic training of future teachers is the result. (5)
- Interchange of roles is a strong component in the program. Students from the university classes bring new ideas and thoughts which provoke thinking about classroom techniques and theory. All programs from the university assist in this realm. (6)

- Allocation of resources has allowed the partner students to plan effectively for future needs as they have seen resources to be quite limited This important skill will ultimately benefit the teacher, the school, and the students. (11)
- General opinion – because of the large number of students many of these goals are feasible but are not achieved because of lack of time and cramped schedules. (12)
-

Partnership #4

- I've already answered what I can on the 4 components. So I will treat this space as "truly open" for my purposes. I have had 2 CU teacher candidates in the partnership program (1996-97). Before that I had had 11 student teachers from various situations, all of which were more successful than the (university) Partnership candidates. One reason for the lack of success of the (university) candidates is that they were required to "observe" way too long in my opinion. When they were finally "ready" to teacher they were very lacking in confidence and skill. I do not believe that co-teaching is anything like "real" teaching. The student teacher should be left alone in the classroom after the first 2 weeks – not just during the last 2 weeks! Another problem I see with the (university) teacher candidate program is that the standards are too low! My last teacher candidate did not fulfill my standards – lost papers, could not tell students their grades, never calculated grades for midterm or report card, was alone only once in the classroom and after a discipline problem NEVER came back (for the last 3 weeks)! Yet the (university) professor working with her pressured me to pass her! How could a person who had never fulfilled even the basic classroom standards, pass? Luckily the (school) partnership person sided with me. The (university) professor told my student teacher that she could go to another school (since she couldn't come back here after the "trauma" of her first discipline problem) and observed for the last 3 weeks! In my opinion, the teacher candidate program is a weak one. (7)
- Preparedness, opportunity, and professional development – greatly enhance any candidate's chances of securing a job. To this end the partnership is quite successful. (8)
- Each of these outcomes was at least approached since these outcomes were not a focus of previous interactions with institutes that trained teachers. Since the number of school hours must be increase for teacher trainees, we should increase our collaborative efforts to maintain a good teacher product. (10)
- I believe the collaboration efforts to be the strongest aspect of the partnership this far – resulting in improved teacher practice and teacher training. I would like to know more about allocation of resources and research and inquiry. (11)
- The partnership only affects a part of the schools' curriculum (15)
- My experience with the partnership has been extremely limited; perhaps having 3-4 participants visit for one class period each, total, during the past 4 years. I strongly believe I am unable to provide effective feedback at this time. (16)
- I do not believe this partnership has benefits for entire (school). It does not do anything basically but train new teachers in certain departments. Not a comprehensive, inclusive partnership. (19)
- It appears to me that the majority of achievements related to expected outcomes are realized by the university and not the partner school. IN general however, I do not think this is necessarily bad. (School) has had increased opportunities in regard to programs and professional development that otherwise we would not have had. (21)
- Allocation of resources – this has opened up opportunities for the classroom teacher that would not have been available otherwise! (22)

- In general I think (university) provides a wonderful opportunity for future teachers. I don't see (university) roles in some of these other areas. I do see that (university) does help teachers further their education but I don't see the #2 and #3 roles happening. (27)
- Our partnership is very effective at public school/university collaboration. This has enabled us to reallocate \$\$ in order to achieve: 1) better teacher training, 2) good opportunities for teacher renewal, 3) good opportunities for professional development on a variety of helpful levels. (30)
- We are beginning a master's program for teachers here at (school) due to our association with (university). (32)
- Collaboration. Working with regular educators to service students with exceptional needs and IEPs is the main goal of Special education. Since the teacher candidates have been attending, teaming, practicing in my Special Education classes, they have learned but more than that, after 30 years I am still learning. (34)

Partnership # 5

- I believe that since the PDS has expanded to the other city high schools, the quality of the candidates and the program as a whole has declined. (5)
- From reading this formal definition of the PDS school it seems as if we at (school) have drifted significantly from the original plan. I have found PDS students minimally qualified. They are willing to put in class time, but little beyond. They use (school) resources (room, time, staff) with little beyond. (7)
- AS a product of a PDS I feel I was better prepared at the start of my career. Now as a participating teacher I feel as though my teaching stays current and have multiple opportunities to reflect upon my teaching. (9)
- The strength of PDS (in my estimation) is the concept of "Interchange of Roles." From a personal point of view, I have gained so much in the arena of delivery and styles. To say that "all participants benefit" is a gross understatement. (11)
- I believe that depending on your involvement with the PDS program all 4 components can be achieved. My involvement has been as a PDS committee member in the past. Currently not being on the committee and not being a classroom teacher, I feel isolated from PDS. I know from flyers what opportunities we have had for classes but that is about it. (13)
- I would like to see more opportunities for professional development and university credit. I think the teachers give so much to the program and that the university should give more. (14)
- My contact with PDS program comes from the use of students as volunteers in one of my programs and to provide information I get on G/T and Differentiated Instruction. (17)
- Our partnership is strongest in collaboration, but has very little strength in allocation of resources and research and inquiry. The teacher as researcher might be a good focus for future collaboration. How could university people help us establish research projects on the effectiveness of methods or content in achieving growth in learning – (19)
- Teachers present to PDS classes. PDS students bring new technology applications. (20)
- By definition, research and inquiry has encouraged reflective practice, though the research angle has been less emphasized. (21)
- I have had minimal involvement with the PDS partnership but fully support the concept. My experience was very positive and a great opportunity to reflect on and/or validate current practices. (22)

Partnership # 6

- One benefit of the PDS program at (school) has been to work with young teachers "to be" and to see their energy, enthusiasm, and idealism. It was also good for them to try some different teaching techniques. As a veteran teacher it's easy to fall into a rut. (1)

- I like to get new ideas for teaching and collaborate with another professional! (6)
- Collaboration between PDS students and school is continuing at a high rate; however, the number of panels in the PDS classroom has decreased dramatically. The panel discussions are valuable. Panels allow the PDS students an opportunity to ask questions of experienced teachers and allow them to get a “fee” for the classroom. (10)
- I don’t see where the PDS program has improved on A-E significantly. Talking to a class once a semester or once a year does not benefit A, B, D, or E. I need more time for innovation, feedback and reflection and use of data. In my area there is no routinized practice. (11)
- I have had 6 PDS students and have never been integrated with university faculty. I have talked with the PDS coordinator from (university partner) and our building coordinator, but the true relationship has been between the preservice teacher and myself. (12)
Collaboration between university and high school program has been improved. Courses have been offered to high school staff for credit and salary movement. (14)

Question 2: Toward which theorized outcomes (increased teacher professionalization and/or improved regularities of schooling) would you like to see greater progress by your partnership? Why?

Partnership #1

- Both – both are enhanced by the partnership – less fear, more cooperation, more opportunities for interaction, pre-teachers are better prepared to enter the classroom. (1)
- Increased teacher professionalism (2)
- I would like to see more opportunities to be presented to my colleagues to gain more professionalization. In order for present teachers to have a positive view of the DPS, they need to see it active in their lives and careers. (3)
- I would like to see (school) look back on past (School)/PDS projects and consider creating opportunities for staff to engage in enriching PDS/(school) activities. (4)
- Increased teacher professionalization – the demand for teachers will exceed the supply till pay rises to an appropriate level. (6)
- Reduced teacher isolation; data to inform decisions; questioning routinized practice (11)
- I haven’t seen much in the way of resource allocation. I still have a full teaching load plus my PDS association. TIME! An increased number of student teachers probably won’t improve our student test scores. They are inexperienced.
- The decision to wear identification badges has added to the professionalism and will make our schools a safer place. (16)
- PDS should do a cost benefit analysis or PDS. Other than a public relations effort, I question how we the teachers get back much of anything. (19)
- I guess any program can be improved. However, I am really impressed with the PDS program. It turns out well-prepared teachers. (22)
- This survey doesn’t match with what we do with PDS. We view PDS as a way of training teachers to be the best while sharpening our skills. (24)
- Increased teacher professionalism is a priority. We can “grow” quality teachers and recruit them to replace those retiring. We won’t “risk” as much because the teachers we hire have already worked in this environment. (26)
- Yes, as more students with an interest in teaching Tech Ed enter the program perhaps we can improve our participation. (27)

Partnership #2

- Every year the program has improved. Because I have a narrow perspective it is hard to know what would benefit all. I appreciate the freedoms allowed when working with an intern. I feel my professional judgment is highly respected. (1)
I think that to be a true partnership there would first need to be more communication between parties toward common goals for our system as well as what we need from teacher candidates. (7)

Partnership #3

- I would like to see improved regularities of schooling. I think consistencies in teacher education programs would help with improving consistency between schools once teachers enter the field. (4)
- Career advancement needs to be expanded. This is met to some extent, but it is often less than it could be. This survey was difficult to fill out without some explanation of the breadth of the partnership activities as viewed by the originator of this survey. (6)
- I believe that my student teachers have been better trained of late. Perhaps this is due to their earlier (soph and jr year) exposure to our setting. My relationship with (university) is friendly and professional, but could be a great deal more. (7)
- From what I can see, both theorized outcomes need work, but improving regularities of school needs the most work. There is not much reflection or the use of data at the school level. (10)
- If increased professionalization were improved, then an accompanying piece that would also need improvement would be institutional support of increased teachers and benefits. The schools turning out these new teachers should help the fight as well, and not leave the responsibilities solely to the teachers' unions. (11)
Increased opportunity for innovation. Feedback; informed decision (12)

Partnership #4

- Increased teacher professionalization: participation, learning, research, mentoring - I think are strong keys to becoming a quality teacher. (8)
- In research and inquiry, I would like more meaningful projects for TCs that will aid in evaluating our school community. Projects seem contrived and most TCs regard them as a waste of time. I believe inquiry is very important and hope it is a bigger part of the picture in the future. Furthermore, if these efforts are being made, we should know about it! (11)
- I would like to see expanded opportunities into all discipline areas. (15)
- Communication regarding institutional collaboration (16)
- I think the partnership is more image than substance and value to all kids and all staff at (school). (19)
- Increase teacher collaboration (21)
- I would like to see a better allocation of resources. Teachers have so much knowledge we should be able to help each other. (27)
- I am always in favor of reality and honesty in all aspects of life especially those that so closely affect youngsters. I'm in favor of maximizing teacher candidates' interaction with students. I would love to see us turn our attention to such real, albeit politically charged issues as attendance, student conduct, partner and student responsibility and how best to raise academic standards in a socially responsible fashion. (30)
- I would like to see additional opportunities to reduce teacher isolationism and establish regular mechanism for feedback and reflection. These opportunities should be voluntary and compensated either monetarily or with IHB credit. There are many advantages to a large

school. However, one of the disadvantages is the isolation within and especially between departments. (31)

- Increased professionalism – we need to focus on teaching as a profession in dire need of community support and respect. (32)
- Show/share best practices on attendance policies and parent involvement in students' academics. (33)
- I would definitely any improved regulations at school. IN Special Education, teacher isolation is a huge factor. Special Education vs. general education has always been a "mind set." Also, routine practice has been s
Seen as self-containing students in the entire OB description of a special education, plus cranking out IEPs. Keep up the good superior excellent work (university) and (school)!

Partnership #5

- I would like to see better candidates. (5)
- I suggest terminating the PDS program and utilizing the room and staff more effectively. (7)
- I would like to set more progress towards professionalization. More acknowledgements the teaching profession receives the greater the accomplishments we can make. It would continue to support our need for greater allocation of resources as well. (9)
- I would like to see better communication with the entire staff about the PDS program. AT one time there was a newsletter. At one time we were doing inquiry. (13)
- More free credit opportunities for teachers. Greater freedom in use of university facilities. (15)
- I would hope I could see some greater progress in improved regularities of schooling attributes. This part would hopefully help very experienced teachers with new techniques and reforms and help teachers learn to share their expertise with others. (17)
- PDS has contributed greatly to reducing teacher isolation. Collaboration between pre-service teachers and (university) personnel help with reflection. The inquiry process is not often a part of discussion, let alone practice. PDS does contribute to discussion of and practice of best practices within the professional community of teachers at (school). (19)
- Both are necessary (20)
- I'd like to see a greater emphasis on teacher involvement in the program. During the term I served as a PDS cooperating test, I never once directly communicated with the PDS coordinators about classroom practice. Involving teachers more intensively would help achieve both component 4 and teacher professionalization. (21)
relationship helps keep the balance in most ventures. (22)

Partnership #6

- It is great! (6)
- PDS students need more classroom observation time along with more time allocated for communication with existing classroom teachers. (10)
- First of all I think (university program) is a farce and does considerable harm to the field of education (11)
- I'm not sure how (university) claims the classroom teachers are benefited by the PDS program. I believe the preservice teacher gains a lot, but for the classroom teacher it is a typical "student teacher" experience. (12)
- Interchange of roles – the more of this we can do between PDS students and teachers in the high school the more all will benefit. (14)